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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

INFLUENCES ON THE ETHICAL ORIENTATIONS OF
CERTIFIED REHABILITATION COUNSELORS

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

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School of Human Sciences
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This Dissertation by: Matthew E. Markve

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ABSTRACT

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Rehabilitation counselors experience ethical issues on a daily basis. There are a number of potential influences on the ethical reasoning of certified rehabilitation counselors (CRCs) including external workplace pressures. Professional development efforts in ethics are infused in rehabilitation counseling graduate programs and continuing education in ethics is a requirement to maintain the CRC credential. Little is known, however, about the impact of these interventions on the day-to-day ethical decision-making of CRCs.

This study analyzed factors that have been hypothesized to influence the ethical orientations and intuitive, everyday decisions of CRCs. This study had two overarching goals: (a) to establish the unique contributions of factors that have been predicted to impact principled ethical decision making, and (b) to confirm if the Ethical Decision-Making Scale-Revised (EDMS-R) was a reliable and valid scale for use in the field of rehabilitation counseling.

This study of the ethical orientations of CRCs, rather than graduate rehabilitation counseling students, furthered existing research by sampling working counselors across a career wide developmental timeline. No significant relationships were detected between the principle index score dependent variable and measures of formalized ethics education,

tenure, and exposure to the ethical code. The proposed explanatory model was subsequently rejected. The EDMS-R did show evidence as a reliable and valid tool for use in the rehabilitation counseling field; however, the range of the outcome variable suggested limits on practical use within this population without further modification.

Understanding what promotes counselor resistance to maladaptive external factors in ethical decision-making remains an open and important question for the field of rehabilitation counseling. Assessing the impact of educational interventions on counselor ethical decision making remains a high priority for rehabilitation counseling educators. Further exploration toward an understanding of what factors influence the ethical judgments of rehabilitation counselors could help inform how modifiable conditions such as the construction of formalized education interventions are constructed.

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LIST OF ACRONYMS

ACA	American Counseling Association
AMOS	Analysis of Moment Structures
ANOVA	One-way analysis of variance
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CORE	Council on Rehabilitation Education
CPERC	Code of Professional Ethics for Rehabilitation Counselors
CRCS	Certified rehabilitation counselors
CRCC	Commission on Rehabilitation Counselor Certification
EDMS-R	Ethical Decision-Making Scale-Revised
EFA	Exploratory factor analyses
RMSEA	Root mean squared error of approximation
SEM	Structural Equation Model
TLI	Tucker-Lewis index

CHAPTER I

INTRODUCTION

Background

Rehabilitation counseling is a specialized counseling profession that presents a number of unique ethical challenges to a wide array of practitioners (Emener & Cottone, 1989; Maki & Tarvydas, 2012; Reid & McReynolds, 2007). Rehabilitation counselors practice in a variety of settings that further compound the diversity and frequency of ethical issues (Commission on Rehabilitation Counselor Certification [CRCC], 2008, 2009; Saunders, Barros-Bailey, Chapman & Nunez, 2009).

Ethical codes establish the rules that govern a given profession (Kitchener, 1984). The Code of Professional Ethics for Rehabilitation Counselors (CPERC) provides mandatory standards and aspirational principles that guide certified rehabilitation counselors (CRCs; CRCC, 2009). The code serves a number of objectives including specifying ethical behavior that protects and promotes the welfare of consumers with disabilities (CRCC, 2009).

A command of mandatory standards is necessary but not sufficient toward the ethical conduct of CRCs. Professional codes of ethics are far from infallible and working drafts of new codes are drafted as soon as a new code is implemented (Corey, Corey, & Callanan, 2007; Kitchener, 2000; Tarvydas & Barros-Bailey, 2010; Tarvydas, Cottone, & Saunders, 2010; Walden, Herlihy, & Ashton, 2003).

Tarvydas (2012) noted that codes are reactive and address issues that have occurred in the profession's past: Although the drafters of codes attempt to anticipate emerging issues, it is difficult to accurately predict how factors such as advances in technology and changes in cultural demographics will impact ethical practice. The use of social media in professional counseling is one example of an emerging issue not directly addressed by the CPERC (Kaplan, Wade, Conteh, & Martz, 2011).

The Code of Professional Ethics for Rehabilitation Counselors cannot address every ethical dilemma and must be general enough to apply to the wide variety of rehabilitation counseling settings (Tarvydas, 2012). Novel situations and complex dilemmas are not directly addressed by codes. Furthermore, counselors might have reasonable differences in how they approach similar ethical issues (CRCC, 2009; Kitchener, 2000). Tarvydas et al. (2001) asked CRCs if 104 behaviors were ethical or not and found that 16% of items were rated *controversial behaviors* and were supported as ethical by 40-60% of respondents. In such cases, counselors must rely on their professional judgment, which is informed by (a) ethical codes, (b) ethical principles, (c) the facts of the situation and (d) a counselor's ordinary moral sense (Kitchener, 1984; Tarvydas, 2012).

Many counselors make ethical decisions on a daily basis. For example, the Rehabilitation Act of 1973 requires that consumers of services are allowed to exercise informed choice in the selection of their vocational goal. The Act requires the approval and signature of both the counselor and consumer before an employment plan is formalized. A common ethical dilemma in the vocational rehabilitation system occurs

when a counselor feels this choice is unrealistic. Davis and Jahner (2010) noted at least four ethical principles that came into conflict when processing this scenario:

- Beneficence: Pursuit of an unrealistic goal is not in the best interest of the consumer.
- Autonomy: Refusal to agree with the goal is contrary to the individual's right to be self-governing.
- Fidelity: Support of an unrealistic goal may violate the public trust placed in a rehabilitation counselor.
- Nonmaleficence: Refusal to encourage the individual may decrease self-esteem and motivation.

Counselors also face a variety of ethical pressures outside of the consumer relationship. Lane, Shaw, Young and Bourgeois (2012) found that 41% of rehabilitation counselors surveyed felt workplace pressures had an influence on their ethical behavior and decision-making. Davis and Jahner (2010) argued that considerable thought should be applied prior to making a decision when competing principles are present. Workplace pressures could impact how a counselor weighs competing principles. For example, state vocational rehabilitation agencies are subject to the evaluation standards and performance indicators established by the Rehabilitation Act of 1973. To meet the performance level for employment outcomes, state agencies must meet or exceed the number of successful employment outcomes from their previous year (U.S. Department of Education, 2008). Internal agency pressures to generate a sufficient quantity of job placements to meet this indicator could restrict the level of risk a counselor is willing to agree to with regard to a

consumer's vocational choice, thereby artificially elevating fidelity over autonomy and negatively impacting consumer choice.

The latest iteration of the Code of Professional Ethics for Rehabilitation Counselors requires counselors to be knowledgeable of the enforceable standards of the profession (CRCC, 2009). However, not all professionals utilize these rules. Pape and Klein (1986) found that 71.2% of rehabilitation practitioners had never consulted a code of ethics to help solve an ethical dilemma. The CPERC requires counselors to (a) recognize underlying principles and competing interests when ethical issues arise and (b) utilize decision-making models and skills in the resolution of ethical dilemmas. Ethical codes are detailed and difficult to memorize; counselors who do not utilize the code as a continued reference (a) are less likely to recognize mandatory standards addressed by the code when they arise and (b) might miss an opportunity to develop "one's ordinary moral sense" (Kitchener, 2000, p. 18). Lack of knowledge of ethical codes increases the possibility of standards violation and possible sanctions for the counselor, and elevates the potential for harm to rehabilitation consumers. Lack of adherence to a common code of ethics weakens the profession of rehabilitation counseling as a whole (Emener & Cottone, 1989). Little is known about the underlying cognitive processes rehabilitation counselors use to resolve ethical issues and relatively few attempts have been made to examine the underlying cognitive processes rehabilitation counselors employ when confronted with ethical issues. Information on the current state of ethical code exposure is critical to understanding if this issue persists today.

Emener, Wright, Klein, Lavender, and Smith (1987) found that 45.4% of rehabilitation professionals reported utilizing "non-conscious awareness" to resolve

ethical situations most of the time (p. 12). Initially, this statistic might seem alarming; however, intuitive decision-making is economical, allowing the counselor to allocate finite attention resources to other areas (Epstein, 1994). In addition, many day to day ethical issues experienced by rehabilitation counselors are not ethical dilemmas but still require ethical judgments, e.g., engaging in sexual contact with a client is universally recognized as unethical by rehabilitation counselors but prohibitions against sexual relationships are still included in the code (CRCC, 2009; Tarvydas et al., 2001). The high rate of reliance on intuition might simply be a function of resolving these more universally understood ethical issues. Templeton and Satcher (2007) found counselors had 40 to 500 consumers in a given caseload. Counselors with these higher caseloads might have a stronger reliance on intuitive decisions.

Statement of the Problem

Ethical codes cannot address every issue and many counselor decisions rely on immediate judgments while meeting with consumers: “When asked if the Code addressed a past ethically troubling problem, only 40% of the rehabilitation counselors responding to this question stated that it was, the majority of which (60%) said it was not (40%) or that they did not know (20%)” (Tarvydas & Barros-Bailey, 2010, p. 210). In such scenarios, ethical decision-making skills and a refined moral orientation are critical to promoting the best interests of clients. Intuitive reason formulates the basis for the recognition (and at times resolution) of salient ethical issues (Kitchener, 2000). Additionally, not all counselors possess a refined moral sense and might be more likely to be influenced by external pressures when resolving ethical issues (Dufrene, 2000; Tarvydas, 1994; Van Hoose & Paradise, 1979). Betan and Stanton (1999) found 50% of

psychotherapists “indicated that they would do less than they believed they should” in a scenario regarding a colleague’s drinking problem (p. 296).

External workplace pressures remain a significant ethical concern in the field of rehabilitation counseling. Lane et al. (2012) found that 41% of rehabilitation counselors surveyed felt workplace pressures had an influence on their ethical behavior and decision-making. Tarvydas and Barros-Bailey (2010) reported conflicts with organizations and payers or employer pressures as the most frequent type of issue currently facing rehabilitation counselors. Employer or payer pressures were also one of the top three content themes counselors felt they would be dealing with in the future.

The effectiveness of intuition for difficult judgments is contentious. For example, Davis and Jahner (2010) argued that intuitive decisions are neither moral nor ethical stating, “Choices must be arrived at objectively on the basis of self-reflection and principle, not unexamined impulse or conditioned response” (p. 24). Kitchener (2000) noted that reliance on a strong moral sense is an indispensable resource for counselors, particularly when requiring an immediate decision. Underdeveloped intuitive reasoning can center on one dimension, while many ethical decisions require weighing a number of factors (Hogarth, 2001; Kitchener 2000).

Haidt (2001) argued that moral reasoning following an intuition can serve as an attempt to justify the intuition itself rather than a rational consideration of a moral issue. The current lack of understanding on how rehabilitation counselors use intuition to resolve ethical issues is potentially problematic. Hogarth (2001) concurred stating, “Most people’s strategies initially consist of trying to confirm their hypotheses...from a

logical viewpoint, however, one should try to disconfirm, not confirm, hypotheses because disconfirmation is more informative” (p. 120).

Numerous models have attempted to explain how individuals develop and utilize moral reasoning in decision-making. One common tradition utilizes a measurement of ethical orientation (Dufrene & Glosoff, 2004; Van Hoose & Paradise, 1979). A counselor’s ethical orientation level informs his/her intuitive judgments (Cottone & Tarvydas, 1998). Studies that have examined the ethical orientations of individuals in the field of rehabilitation counseling have been restricted to university students (Ong, 2005; Tarvydas, 1994). Tarvydas (1994) found that 32.8% of rehabilitation counseling students fell into a cluster with a highly variable orientation, suggesting potential “increased risk for uninformed or marginal ethical practices” (para. 2). These results are not easily generalizable to practitioners in the field. Years of experience in the field might account for higher levels of ethical orientation not accounted for in university samples. Tenure could have a positive impact on moral orientation through (a) years of practice and critical evaluation, (b) increased exposure to ethical codes and ethical theory, and (c) formalized ethical training (Kitchener, 1984; Lapsley, 1996).

Certified rehabilitation counselors (CRCs) typically have at least two areas that are designed to promote ethical skills. First, the Council on Rehabilitation Education (CORE, 2012) provides accreditation for rehabilitation counseling master’s programs. The CORE’s Student Learning Outcomes require student exposure to the Code of Professional Ethics for Rehabilitation Counselors (CPERC) and also require programs to infuse ethical concepts throughout the graduate curriculum (CORE, 2012). Secondly, the

Commission on Rehabilitation Counselor Certification (CRCC, 2012) requires 10 hours of continuing education in ethics for each five year recertification.

Optional university courses in ethics can provide for additional professional development. Assessing the effectiveness of ethics training for counselors is an ongoing issue (de las Fuentes, Willmuth & Yarrow, 2005; L. Hedenblad, personal communication, June 16, 2012). Finally, there is a need for accurate, reliable, and meaningful scales to measure the impact of ethical interventions for rehabilitation counselors (Dufrene, 2000).

Purpose of the Study

This study analyzed factors that have been hypothesized to influence the ethical orientations and intuitive decisions of rehabilitation counselors. This study had two overarching goals: (a) to establish the unique contributions of factors predicted to impact principled ethical decision-making, and (b) to confirm if the Ethical Decision-Making Scale-Revised (EDMS-R; Dufrene, 2000) is a reliable and valid scale for use in the field of rehabilitation counseling. The study contributed to the literature on the ethical orientations of counselors in the field of rehabilitation and provided initial information on how factors such as ethics training, tenure, and exposure to the CPERC influenced these orientations for CRCs. In addition, the study expanded the rehabilitation counseling population samples for the EDMS-R and sought to test the reliability and validity of the EDMS-R for further use in the study of rehabilitation counselor ethics.

Significance of the Study

Understanding what factors influence the ethical judgments of rehabilitation counselors could help inform future research. A study of the ethical orientations of currently practicing counselors, rather than graduate rehabilitation counseling students,

provides information of greater relevance to the field. Higher levels of ethical orientation reflect more internalized ethical decision-making and suggest a decrease in the impact of external organizational-based pressures (Van Hoose & Paradise, 1979). Furthermore, an analysis of the factors that promote higher order ethical decision-making for practicing rehabilitation counselors could help inform further efforts toward optimization of that professionalization, ultimately resulting in more consumer-centered decision-making.

The few scales that examine ethical decision-making remain under-tested and underdeveloped for use with practicing rehabilitation counselors (R. Dufrene, personal communication, June 8, 2012). The reliability of the EDMS-R has been established in the counseling profession and extensive efforts have been made toward improving construct validity over the first iteration of the scale (Dufrene & Glosoff, 2004). Ethical vignettes contained in the EDMS-R are based on the American Counseling Association (ACA) code that shares many features with the CPERC. The current Code of Professional Ethics for Rehabilitation Counselors has adopted many enforceable standards from the ACA code (CRCC, 2009; Dufrene & Glosoff, 2004). Tarvydas, Leahy, and Saunders (2004) found evidence that certified counselors shared a core set of ethical beliefs when endorsing clearly ethical, clearly unethical, and controversial items. However, studies utilizing the EDMS-R have focused on students rather than on practicing counselors (Dufrene 2000; Lambie, Hagedorn, & Ieva, 2011; Ong, 2005). The time period between shifts in levels of hierarchical developmental theory can often be measured in years (Kohlberg, 1984). An examination of ethical orientation stage differences across practicing counselors with various levels of experience might provide the range necessary to measure differences in developmental advancement toward

principled ethical decision-making. Furthermore, confirming that the factors in the EDMS-R apply to practicing rehabilitation counselors would allow for future use within the field including the possibility to measure the effectiveness of educational requirements on ethical decision-making. Establishing a valid and reliable scale to measure the impact various interventions to increase ethical decision-making skills is a critical step to optimize efforts to promote more principled ethical decision-making for rehabilitation counselors.

Conceptual Framework

The models informing this study were Kitchener's (1984) model of ethical justification, Kohlberg's (1984) stages of moral development, and Van Hoose and Paradise's (1979) stages of ethical orientation. Kitchener's (1984, 2000) model of ethical justification represents a hierarchical framework of understanding how ethical issues are processed and resolved through two primary levels. Figure 1 provides a visual representation of this model. The first is an intuitive level of judgment that is informed by situational information and an individual's sense of morality (Kitchener, 1984). Depending on the constraints of the situation, most ethical action is taken at this level: "Immediate moral feelings are critical to everyday ethical decisions...there is often little time for conscious and explicit reflection" (Kitchener, 1984, p. 44). Kitchener is careful to note that this intuitive level is informed by knowledge as well as moral belief, and that a counselor's knowledge of ethical principles and codes of ethics are included in their initial decisions. It is also important to note that both Kitchener and Kohlberg supported the idea that an individual's ordinary moral sense can evolve over time to become more ethically oriented through development including (a) years of practice and critical

evaluation, (b) increased exposure to ethical codes and ethical theory, and (c) formalized ethical training (Kitchener, 2000; Lapsley, 1996). In other words, one function of ethical codes and formalized training in ethics is to help counselors anticipate, address, and integrate more common ethical issues into intuitive responses.

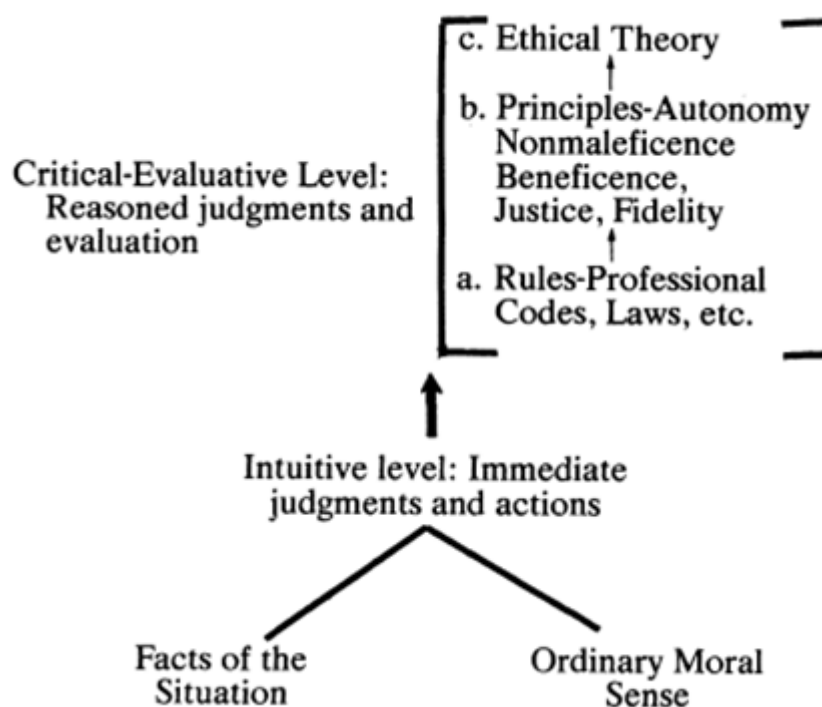


Figure 1. Kitchener's model of ethical justification.

When resolutions to ethical problems are not readily apparent, the counselor moves to Kitchener's (2000) critical-evaluative level that implements evaluation, analysis, and rational judgment. The counselor should continue progressing further up the hierarchy until he/she is able to justify his/her decision. The first step in the critical-evaluative stage requires consulting ethical rules that could encompass professional codes

of ethics, laws, and organizational policy to provide additional guidance for their judgment. This initial evaluative solution might not be sufficient to address a particular issue for a number of reasons: (a) ethical dilemmas might be novel enough that this first evaluative step is of little use; (b) laws, codes, or organizational policy might be in conflict; and (c) the counselor might be subject to multiple codes that provide contradictory standards (Kitchener, 1984). The Code of Professional Ethics for Rehabilitation Counselors does note that when multiple codes are in conflict, the CRC is bound to the enforceable standards of the CPERC (CRCC, 2009).

When ethical rules fail to properly address an ethical issue, Kitchener's (2000) next hierarchical step involves a consultation of aspirational ethical principles. According to the Commission on Rehabilitation Counselor Certification (2009), the six principles of ethical behavior are autonomy, beneficence, fidelity, justice, nonmaleficence, and veracity. These principles mirror those included by Kitchener's (1984) original article with the exception of veracity, a new inclusion as of 2010 in the CPERC. Kitchener covers a portion of the CPERC definition of veracity "to be honest" as a subset of fidelity "do not lie" (CRCC, 2009; Kitchener, 1984).

Finally, if ethical principles are in conflict, the counselor can proceed to the final stage in Kitchener's (1984) critical-evaluative level--ethical theory. It was beyond the scope of this dissertation and this researcher to articulate the foundations of ethical theory and the accompanying eons of philosophical thought that informed it. One helpful suggestion, however, was the "good reasons" approach, also articulated as the "golden rule...we should decide in a way that is consistent with what we would want for

ourselves, our loved ones, and all people under the same conditions” (Kitchener, 1984, p. 53).

The second model that informed this study was Lawrence Kohlberg’s (1984) stages of moral development. Kohlberg took the “good reasons/golden rule” approach a step further. His terminal stage of hierarchical development asks the individual facing an ethical dilemma to play a game of “moral musical chairs” by playing out all roles in a given situation before deciding what is just (Lapsley, 1996). If an individual’s sense of morality forms the foundation of Kitchener’s (1984) decision-making model, Kohlberg provides a model that helps further understand what informs those judgments.

Kohlberg’s (1984) hierarchical model consists of three primary levels influenced by Jean Piaget’s developmental stage theory. Concrete operations serve as a prerequisite for conventional morality and formal operations are a prerequisite for principled/postconventional morality (Kohlberg, 1984). Kohlberg’s (1984) six moral stages are comprised of three primary levels with two moral stages each. The stages can be interpreted as an individual’s “reference point for judging [what is] fair or right” (Kohlberg, 1984, p. 172). Table 1 presents a basic summary of those levels and stages.

A key theme in this summary is the transition from an adherence to externally imposed forms of morality to internally selected ethical principles. Kohlberg (1984) defines conventional as “conforming to and upholding the rules and expectations and conventions of society or authority just because they are society’s rules, expectations, or conventions” (p. 172).

Table 1

Kohlberg's Six Moral Stages

Level/Stage	What Is Right
Level 1: Preconventional	
Stage 1: Heteronomous Morality	To avoid breaking rules backed by punishment, obedience for its own sake, and avoiding physical damage to persons and property.
Stage 2: Individualism, Instrumental Purpose and Exchange	Following rules only when it is to someone's immediate interest; acting to meet one's own interests and needs and letting others do the same. Right is also what's fair, what's an equal exchange, a deal, an agreement.
Level 2: Conventional	
Stage 3: Mutual Interpersonal Expectations, Relationships and Interpersonal Conformity	Living up to what is expected by people close to you or what people generally expect of people in your role as son, brother, friend, etc. "Being good" is important and means having good motives, showing concern about others. It also means keeping mutual relationships, such as trust, loyalty, respect, and gratitude.
Stage 4: Social System and Conscience	Fulfilling the actual duties to which you have agreed. Laws are to be upheld except in extreme cases where they conflict with other fixed social duties. Right is also contributing to society, the group, or institution.
Level 3: Postconventional/Principled	
Stage 5: Social Contract or Utility and Individual Rights	Being aware that people hold a variety of values and opinions, that most values and rules are relative to your group. These relative rules should usually be upheld, however, in the interest of impartiality and because they are the social contract. Some nonrelative values and rights like life and liberty, however, must be upheld in any society and regardless of majority opinion.
Stage 6: Universal Ethical Principles	Following self-chosen ethical principles. Particular laws or social agreements are usually valid because they rest on such principles. When laws violate these principles, one acts in accordance with the principle. Principles are universal principles of justice: the equality of human rights and respect for the dignity of human beings as individual persons.

Adapted from Kohlberg (1984).

The pre-conventional level is comprised of the majority of children under the age of nine who have not yet grasped societal expectations. Rules are provided by authority figures and are external to self, i.e., at stage one, the individual's sense of morality is derived from avoiding punishment and adhering to rules (Kohlberg, 1984; Lapsley, 1996).

The conventional level is reached when the individual has an understanding of what society expects and internalizes those expectations. The majority of adolescents and adults worldwide operate at this level. The transition from stage three to four is demonstrated by a change from operating under interpersonal group norms of those with whom the individual has a personal relationship (e.g. family, coworkers) to an adherence to the laws of society as a whole (Kohlberg, 1984; Lapsley, 1996).

The post-conventional level reflects an understanding and general acceptance of societal rules and expectations but also a willingness to rely on internalized universal principles when the two are in conflict. The post-conventional or principled level is only reached by a small, typically highly educated number of people and generally only after age 20. Level five includes an "intuitive prior to-society awareness of universalizable values that anyone would want to see reflected in a moral society" (Lapsley, 1996, p. 71). Level six reasoning requires an adherence to principles when in conflict with law and a calculated consideration of the needs of all parties affected without a consideration of self. A number of global studies found very few individuals operated at level six. (Kohlberg, 1984; Lapsley, 1996; Snarey, 1985).

There have been numerous attempts to expand on and improve the work of Kohlberg (1984) with the majority of these efforts concentrating on moral development

theory (Gibbs, 2003; Modgil & Modgil, 1986). While moral orientation informs intuitive decision-making, ethical orientation is a separate construct that must be filtered through a more focused and relevant set of rules (Dufrene & Glosoff, 2004). Van Hoose and Paradise (1979) adapted Kohlberg's moral developmental stages to establish a five stage ethical orientation model for use by psychotherapists and counselors, proposing the following hierarchical levels of ethical orientation: (a) punishment, (b) institutional, (c) societal, (d) individual, and (e) principle. Table 2 provides those levels and accompanying summaries of counselor rationale for each stage.

Mirroring Kohlberg's (1984) developmental hierarchical model, these stages of ethical orientation center around a given counselor's rationale when making an ethical determination--beginning with an external reliance and adherence to rules on one end of the spectrum and terminating with an ultimate concern for the consumer--guided by internalized moral values and ethical principles. At stage one punishment orientation, the counselor relies on a fundamental adherence to rules and standards in an effort to avoid punishment and gain reinforcement. The institutional orientation counselor bases his/her decisions on the expectations of supervisors and organizational policy. The stage three societal orientation counselor places the needs of society over the needs of the individual. The basis for ethical decision-making transitions from external to internal at stage four, where the rules of society are still recognized, is subordinate to the welfare of the individual. At stage five, counselor decision-making is reliant on an adherence to internalized aspirational principles and concern for the individual regardless of "external pressures, consequences or situational factors" (Van Hoose & Paradise, 1979, p. 39).

Table 2

The Stages of Ethical Orientation

Ethical Orientation	Counselor Rationale
Stage I—Punishment	Counselor decisions, suggestions, and courses of action are based on a strict adherence to prevailing rules and standards; i. e., one must be punished for bad behavior and rewarded for good behavior. The primary concern is the strict attention to the physical consequences of the behavior.
Stage II—Institutional	Counselor decisions, suggestions, and courses of action are based on a strict adherence to the rules and policies of the institution or agency. The correct posture is based upon the expectations of higher authorities.
Stage III—Societal	The maintenance of standards, approval of others, and the laws of society and the general public characterize this stage of ethical behavior. The concern is for duty and social welfare.
Stage IV—Individual	The primary concern of the counselor is for the needs of the individual while avoiding the violation of laws and the rights of others. Concern for law and societal welfare is recognized, but is secondary to the needs of the individual.
Stage V—Principle or Conscience	Concern for the individual is primary with little regard for the legal, profession, or societal consequences. What is right, in accord with self-chosen principles of conscience and internal ethical formulations, determines counselor behavior.

Note. From Van Hoose and Paradise, 1979, p. 38.

This work helped establish ethical developmental theory as an empirical process (Van Hoose & Paradise, 1979). Figure 2 presents a visual representation illustrating how Kohlberg's (1984) stages of moral development, the ethical orientation model, and Kitchener's (2000) ethical decision model might work together to inform intuitive judgments and ethical decision-making. Kohlberg's moral development stages were customized for use in counselor development with the ethical orientation model proposed by Van Hoose and Paradise (1979). Higher order decisions on the ethical orientation model suggest a more developed ordinary moral sense, leading to better judgments and actions on Kitchener's intuitive level of decision-making.

Mechanics of Theoretical Model

Critical evaluation of ethical issues might enhance an individual's ordinary moral sense, in turn improving ethical decision-making (Kitchener, 2000). Attending to ethical issues engages this process, leading to a cycle of professional improvement. Early moral development forms the foundation for a counselor's initial ethical orientation, which in turn is a component of one's ordinary moral sense. Counselors rely on their ordinary moral sense to recognize ethical issues in real time to identify which require more processing. Practitioners then enter Kitchener's (2000) critical-evaluative level by considering ethical codes, laws, principles, and theory to assist in the resolution of true ethical dilemmas.

The cognitive processing conducted at the critical-evaluative level by definition employs encoding, retrieval, and/or rehearsal of relevant information. Figure 2 illustrates how formalized education in ethics, ethical code exposure, and tenure might influence a counselor's orientation and inform their ordinary moral sense through this process:

1. Formalized education can target all three levels of the critical-evaluative stage and depending on how an educational intervention is structured, could engage a participant on all levels of the conceptual model.
2. Ethical code consultation at the first step of the critical-evaluative level also presents an opportunity to encode and rehearse professional standards, potentially improving an individual's moral sense.
3. Tenure represents professional experience and longer tenure should provide a more experienced counselor an increased opportunity to employ ethical decision-making, thus refining their ordinary moral sense.

In summary, the activation of the critical-evaluative level in the conceptual model of ethical decision-making (see Figure 2) is only achieved through conscious attention to ethical concepts by the counselor. This presents an opportunity for a counselor to enhance his/her ordinary moral sense through various cognitive processes. Factors present in Figure 3 (formalized ethics education, code exposure and tenure) represent opportunities to engage in these processes.

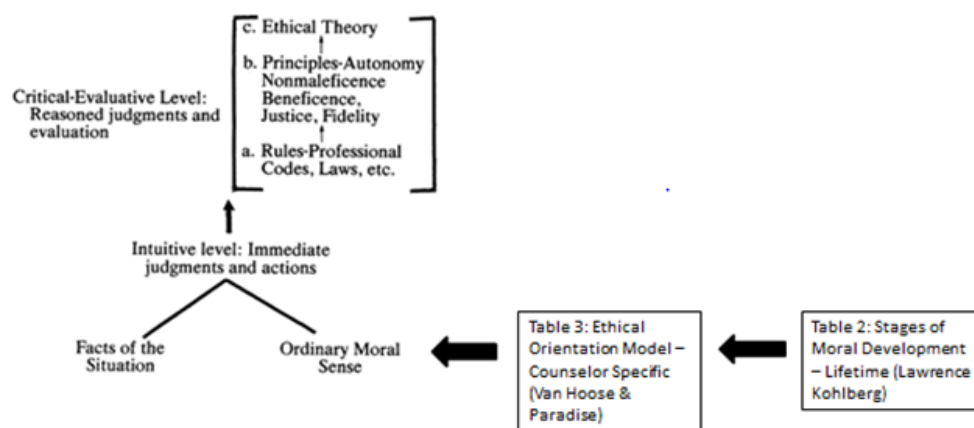


Figure 2. Conceptual model of ethical decision-making informed by moral development and ethical orientation.

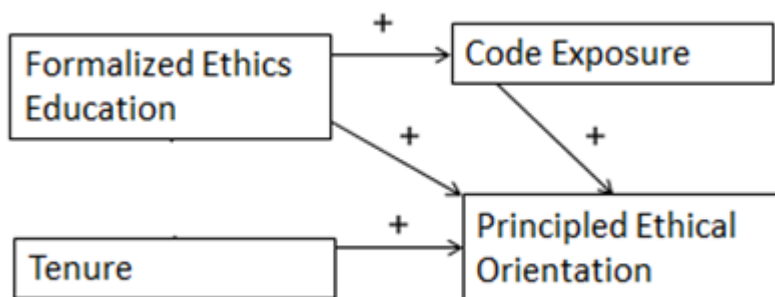


Figure 3. Theoretical path analysis model.

Research Questions

- Q1 How are formalized ethics education, tenure, and ethical code exposure related to ethical orientation?
- Q2 Is the Ethical Decision-Making Scale Revised (EDMS-R) a reliable and valid scale for use in the field of rehabilitation counseling?

Scope of the Study

This study was limited to rehabilitation counselors who are currently certified by the Commission on Rehabilitation Counselor Certification (CRCC). Eligibility requirements for the certified rehabilitation counselor's exam require in general at least a master's degree in rehabilitation counseling or an affiliated field. All certified rehabilitation counselors (CRCs) are mandated to practice in accordance with the Code of Professional Ethics for Rehabilitation Counselors; therefore, responses might not generalize to the rehabilitation counselor profession as a whole (just to CRCs). Not all CRCs practice within the field of rehabilitation counseling. Initial materials sent to CRCs asked that counselors who were not active in the rehabilitation field not participate in the survey.

Limitations of the Study

This study was focused on the ethical orientations of rehabilitation counselors. Intuitive decisions represent a critical initial step in the recognition and resolution of ethical issues but are one aspect of the greater ethical decision-making process. Ethical decision-making as a whole provides the counselor with opportunities to critically evaluate a situation, consult a code of ethics, and consult other peers among other stages in resolving an ethical issue. Furthermore, ethical decisions do not always translate into ethical actions. Regardless, a recognition and initial assessment of an ethical issue is the first and critical step in the overall process toward an ethical action. This study assumed counselors would rate the importance of actions in isolation and without the benefit of collaboration and consultation of ethical codes.

Definition of Terms

Aspirational principles. Moral principles common to a profession that can help guide ethical decision-making. Adherence to these principles is encouraged but not a part of the Code of Professional Ethics for Rehabilitation Counselors enforceable standards. The six common principles of the CPERC are autonomy, beneficence, fidelity, justice, nonmaleficence, and veracity (CRCC, 2009; Knapp & VandeCreek, 2006).

Autonomy. “To respect the rights of clients to be self-governing within their social and cultural framework” (CRCC, 2009, p. 2).

Beneficence. “To do good to others; to promote the well-being of clients” (CRCC, 2009, p. 2).

Ethical decision. Any decision relating to the aspirational principles or enforceable standards of the Code of Professional Ethics for Rehabilitation Counselors.

Ethical dilemma. A complex ethical issue that occurs when enforceable standards and/or aspirational principles are in conflict requiring a decision between ethical obligations (CRCC, 2009, Kitchener, 2000).

Ethical intervention. Any effort to promote ethical conduct in certified rehabilitation counselors. Examples of ethical interventions include (a) formalized education in ethics, (b) exposure to ethical codes, (c) ethical code revisions, and (d) the promotion of an ethical workplace culture.

Ethical orientation. “The rationale underlying ethical decision-making” (Van Hoose & Paradise, 1979, p. 37).

Fidelity. “To be faithful; to keep promises and honor the trust placed in rehabilitation counselors” (CRCC, 2009, p. 2).

Justice. “To be fair in the treatment of all clients; to provide appropriate services to all” (CRCC, 2009, p. 2).

Mandatory ethics. Enforceable standards in the code that must be followed. These establish the basis for punitive action by an ethics committee (Corey et al., 2007; CRCC, 2009).

Moral intuitions. Immediate moral judgments (positive or negative) that require strong evidence to overturn (Haidt, 2001; Sinnott-Armstrong, Young, & Cushman, 2010).

Morality. “Morality is concerned with perspectives of right and proper conduct and involves an evaluation of actions on the basis of some broader cultural context or religious standard” (Corey et al., 2007, p. 14).

Moral principles. Aspirational principles included in many ethical codes. The moral principles found in the CPERC are (a) autonomy, (b) beneficence, (c) fidelity, (d) justice, (e) nonmaleficence, and (f) veracity (Corey et al., 2007; CRCC, 2009).

Moral reasoning. “Conscious mental activity that consists of transforming given information about people in order to reach a moral judgment” (Haidt, 2001, p. 818).

Morals. “What people believe about what is right and wrong or good and bad about character or conduct” (Kitchener, 2000, p. 2).

Nonmaleficence. “To do no harm to others” (CRCC, 2009, p. 2).

Veracity. “To be honest” (CRCC, 2009, p. 2).

Summary

Rehabilitation counselors face specific ethical challenges that require a separate code of ethics from counseling in general. The Code of Professional Ethics for Rehabilitation Counselors (CPERC) provides mandatory standards and aspirational

principles that guide the field of rehabilitation and protect the welfare of consumers. Early national studies in rehabilitation counseling ethics indicated many professionals did not use the Code and that almost half of rehabilitation professionals had a tendency to rely on intuitive judgments to make most of their ethical decisions. Furthermore, the CPERC does not address a number of ethically troubling problems facing rehabilitation counselors, creating an additional reliance on a strong ethical grounding to recognize and appropriately address ethical issues.

Controversy exists regarding the utilization of intuition in resolving ethical issues. Intuitive judgment does not always provide the counselor with the optimal ethical response in complex ethical situations. However, intuitive decisions can provide an efficient response to simple ethical issues and, accompanied with high moral development, allow the counselor to make ethical choices in more complex but immediate situations. Depending on the situation, counselors might not have the luxury of consulting an ethical code or engaging in critical reflection concerning an ethical issue. Intuitive decisions are informed by a counselor's personal sense of morality. Kohlberg (1984) suggested there are different hierarchical stages of moral development and that higher order moral thinking can be promoted through normal growth and development as well as education.

Van Hoose and Paradise (1979) adapted Kohlberg's (1984) developmental stages for use in the counseling profession. This scale provides a theoretical foundation on which to gauge intuitive moral judgments. Prior studies concerned with the ethical orientations in rehabilitation counselors have been restricted to students in the university setting. A study involving practicing rehabilitation counselors might provide a more

accurate assessment of the profession. Rehabilitation counseling as a profession continues to strengthen the ethical requirements of its counselors; however, questions on how to measure the effectiveness of various ethical interventions remain. By examining the ethical orientations of practicing rehabilitation counselors as well as factors that might influence the levels of those orientations, the field might gain valuable knowledge on how to best promote principled ethical decision-making.

CHAPTER II

LITERATURE REVIEW

The need for a code of ethics specific to rehabilitation counselors was recognized over 40 years ago with the first field specific code established by the National Rehabilitation Counseling Association in 1972 (Emener & Cottone, 1989; Herlihy & Remley, 1995). Historical studies identified a number of deficiencies in rehabilitation ethics including (a) lack of professionalization, (b) lack of systematic research informing ethical codes, (c) conflicting codes of ethics, (d) lack of enforceable standards, (e) employer pressures, and (f) fragmentation across numerous professional organizations (Cottone, Simmons & Wilfley, 1983; Emener & Cottone, 1989; Emener et al., 1987; Pape & Klein, 1986).

Efforts to address these deficiencies and unite the field of rehabilitation counseling around a central code of ethics began in the early 1980s and involved the combined efforts of the American Rehabilitation Counseling Association (ARCA), the Commission on Rehabilitation Counselor Certification (CRCC), and the National Rehabilitation Counseling Association (NCRA). The unified document that came out of these efforts was the 1987 Code of Professional Ethics for Rehabilitation Counselors (CPERC; CRCC, 2012). This unification process also began a trend of sampling the wide array of stakeholders that compose the field of rehabilitation counseling (Herlihy & Remley, 1995; Tarvydas & Pape, 1998). In addition to eliminating issues with

ambiguous standards across multiple codes, a unified code allows for an easier path to subsequent revisions (Herlihy & Remley, 1995).

Since those initial efforts, ethical requirements have evolved for rehabilitation counselors and certified rehabilitation counselors (CRCs) have evolved to include (a) periodic revisions of the enforceable standards of the CPERC, (b) continuing education requirements for CRC recertification, and (c) ethical instruction requirements at the graduate level for CORE accredited institutions (CORE, 2012; CRCC, 2009). While numerous studies in rehabilitation counseling ethics have been conducted to inform CPERC development and educational efforts, there remains a dearth of research that seeks to measure the impact of these requirements on the ethical decision-making skills of rehabilitation counselors.

Ethical Decision-Making

Kitchener's (1984, 2000) model of ethical justification represents a hierarchical framework of understanding how ethical issues are processed and resolved through two primary levels. This study was focused on the first intuitive level of judgment, which is informed by situational information and an individual's sense of morality. Depending on the constraints of the situation, most ethical action is taken at this level. Before a counselor can make an ethical decision, he/she must first recognize that a dilemma exists. "Immediate moral feelings are critical to everyday ethical decisions...there is often little time for conscious and explicit reflection" (Kitchener, 1984, p. 44). The intuitive level of the decision-making process is informed by prior knowledge as well as moral belief. A counselor's knowledge of ethical principles and codes of ethics are included in their initial decisions: "Individuals have an immediate, prereflective response to an ethical

situation on the basis of the sum of their prior ethical knowledge and experience” (Kitchener, 2000, p. 12). Moral development theory supports the idea that an individual’s ordinary moral sense can evolve over time to become more principled. Factors that promote more principled ethical-decisions include (a) years of practice and critical evaluation, (b) increased exposure to ethical codes and ethical theory, and (c) formalized ethical training (Kitchener, 2000; Lapsley, 1996).

When resolutions to ethical problems are not readily apparent, the counselor moves to Kitchener’s (2000) critical-evaluative level that implements evaluation, analysis, and rational judgment. The counselor should continue progressing further up the hierarchy until he/she is able to justify his/her decision. The first step in the critical-evaluative stage requires consulting ethical rules that could encompass professional codes of ethics, laws, and organizational policy to provide additional guidance for their judgment. There are a number of reasons this initial evaluative solution might not be sufficient to address a particular issue: (a) ethical dilemmas may be novel enough that this first evaluative step is of little use; (b) laws, codes, or organizational policy might be in conflict; and (c) the counselor might be subject to multiple codes that provide contradictory standards (Kitchener, 1984). The CPERC does note that when multiple codes are in conflict, the CRC is bound to the enforceable standards of the CPERC (CRCC, 2009).

When ethical rules fail to properly address an ethical issue, Kitchener’s (2000) next hierarchical step involves a consultation of aspirational ethical principles. According to the CRCC (2010), the six principles of ethical behavior are autonomy, beneficence, fidelity, justice, nonmaleficence, and veracity. These principles mirror

those included by Kitchener's (1984) original article with the exception of veracity, a new inclusion as of 2012 in the CPERC. Kitchener covers a portion of the CPERC definition of veracity "to be honest" as a subset of fidelity, "do not lie" (CRCC, 2009). Finally, if ethical principles are in conflict, the counselor can proceed to the final stage in Kitchener's critical-evaluative level--ethical theory.

Psychology of Moral Development

Kohlberg's (1984) hierarchical model consists of three primary levels influenced by Jean Piaget's developmental stage theory. Concrete operations serve as a prerequisite for conventional morality and formal operations are a prerequisite for principled/postconventional morality (Kohlberg, 1984). Kohlberg's six moral stages are comprised of these three primary levels with two moral stages each. The stages can be interpreted as an individual's "reference point for judging [what is] fair or right" (Kohlberg, 1984, p. 172). Table 2 in Chapter I presented a basic summary of these levels and stages.

A key theme in this summary is the transition from an adherence to externally imposed forms of morality to internally selected ethical principles. Kohlberg (1984) defines conventional as "conforming to and upholding the rules and expectations and conventions of society or authority just because they are society's rules, expectations, or conventions" (p. 172).

The preconventional level is comprised of the majority of children under the age of nine who have not yet grasped societal expectations. Rules are provided by authority figures and are external to self, i.e., at stage one, the individual's sense of morality is

derived from avoiding punishment and adhering to rules (Kohlberg, 1984; Lapsley, 1996).

The conventional level is reached when the individual has an understanding of what society expects and internalizes those expectations. The majority of adolescents and adults worldwide operate at this level. The transition from stage three to four is demonstrated by a change from operating under interpersonal group norms of those with whom the individual has a personal relationship (e.g. family, coworkers) to an adherence to the laws of society as a whole (Kohlberg, 1984; Lapsley, 1996).

The post-conventional level reflects an understanding and general acceptance of societal rules and expectations but also a willingness to rely on internalized universal principles when the two are in conflict. The post-conventional or principled level is only reached by a small, typically highly educated number of people and generally only after age 20. Level five includes an “intuitive prior to-society awareness of universalizable values that anyone would want to see reflected in a moral society” (Lapsley, 1996, p. 71). Level six reasoning requires an adherence to principles when in conflict with law and a calculated consideration of the needs of all parties affected without a consideration of self. A number of global studies found very few individuals operate at level six (Kohlberg, 1984; Lapsley, 1996; Snarey, 1985).

Studies that attempted to influence student values to promote ethical conduct had little success (Lee & Padgett 2000; Lord & Bjerregaard, 2003). Kohlberg’s (1984) approach eschewed the moral relativity approach inherent in values clarification approaches and argued that all societies share a core set of universal values. Kohlberg’s moral reasoning approach promoted more ethical behavior through exposure to higher

moral developmental stages and exploration of true moral dilemmas (Cottone & Tarvydas, 1998).

Ethical Orientation

The stages of ethical orientation provide a more valid framework to view the intuitive stage ethical decision-making development of certified rehabilitation counselors: “The individual’s level of ethical orientation can be thought of as forming that person’s intuitive sense of moral judgment. The counselor would use this first general level of orientation or moral thinking to consider ethical dilemmas” (Cottone & Tarvydas, 1998, p. 134). Van Hoose and Paradise (1979) adapted Kohlberg’s (1984) moral developmental stages to establish a five stage ethical orientation model for use by psychotherapists and counselors, proposing the following hierarchical levels of ethical orientation: (a) punishment, (b) institutional, (c) societal, (d) individual, and (e) principle or conscience.

Van Hoose and Paradise (1979) provided six assumptions regarding the stages of ethical behavior: (a) counselor decisions are a function of educational, situational, and related variables; (b) the ethical orientation stages are qualitatively discrete and reside on a continuum of ethical reasoning; (c) counselor judgment is characterized in terms of their most dominant ethical orientation stage; (d) stages on the continuum are continuous and overlapping, suggesting progression toward higher levels of ethical decision-making; (e) ethical orientation development does not regress, although ethical behavior associated with a specific issues might reflect a lower orientation; and (f) in situations where a counselor’s dominant ethical orientation stage conflicts with a lower level of expected behavior, the counselor is more likely to act on higher order internally held beliefs

(Cottone & Tarvydas, 1998). In summary, while counselors might make decisions based on external pressures, the more principled their orientation on the continuum of stages of ethical behavior, the more likely counselors will be to act with concern for the client regardless of organizational or societal consequences.

The stages of ethical orientation center around a given counselor's rationale when making an ethical determination--beginning with an external reliance and adherence to rules on one end of the spectrum and terminating with an ultimate concern for the consumer--guided by internalized moral values and ethical principles.

At the stage one punishment orientation, the counselor relies on a fundamental adherence to rules and standards in an effort to avoid punishment and gain reinforcement. The institutional orientation counselor bases his/her decisions on the expectations of supervisors and organizational policy. The stage three societal orientation counselor places the needs of society over the needs of the individual. Van Hoose and Paradise (1979) made the distinction between internal and externally based reasoning within their stages. The basis for ethical decision-making transitions from external to internal at stage four where the rules of society are still recognized but are subordinate to the welfare of the individual. At stage five, counselor decision-making is reliant on an adherence to internalized aspirational principles and concern for the individual regardless of "external pressures, consequences or situational factors" (Van Hoose & Paradise, 1979, p. 39). Dufrene (2000) found evidence for this two-factor internal and external solution in a cluster analysis of students. Dufrene and Glosoff (2004) noted that counselors on the first two most external levels of ethical orientation "tend toward oversimplifications, self-protectiveness, and authoritarianism," while counselors operating at the individual or

principle orientations “are more flexible, complex and contextually sensitive to a situation” (p. 3).

Ethical Orientation and Rehabilitation Counseling

Only two studies have analyzed the concept of ethical orientation in the field of rehabilitation counseling. Both studies relied on a sample of students across a number of rehabilitation counseling programs (Ong, 2005; Tarvydas, 1994). Tarvydas (1994) utilized the Ethical Judgment Scale (EJS) to assess the ethical orientation of 58 master’s level rehabilitation counseling students at 11 different universities. The EJS utilized the stages of ethical orientation established by Van Hoose and Paradise (1979).

Using a cluster analysis, four unique groups were identified. The highest performing cluster, comprised of 31% of students, operated predominantly at the highest principled orientation level. Counselors operating at this level were basing ethical decisions solely on what was best for the client (Van Hoose & Paradise, 1979). Tarvydas (1994) suggested that this group might have the potential to serve as ethical leaders in their organizations. Students in clusters two and three operated primarily at the second highest individual orientation--balancing the needs of the consumer with legal and organizational concerns. The fourth cluster, consisting of 32.8% of students, was highly variable with no clear orientation emerging. Tarvydas warned this group had the potential to exhibit “increased risk for uninformed or marginal ethical practices” (para. 2). This initial work suggested that many rehabilitation counseling students are operating at a relatively high ethical orientation level; however, the presence of high variability in the largest cluster might suggest a poor grounding in ethical knowledge and principles and is a cause for further research and concern.

Ong (2005) also conducted a cluster analysis to determine ethical orientation profiles on 135 graduate and undergraduate students in rehabilitation counseling. Similar to the 1994 study by Tarvydas, the rehabilitation counseling students “exhibited an individual level of ethical orientation” (Ong, 2005, p. 61). Unlike the Tarvydas study, this study utilized the Ethical Decision-Making Scale-Revised (a scale designed to address reliability and validity issues with the EJS) to determine an ethical orientation stage outcome (Dufrene & Glosoff, 2004; Tarvydas, 1994). Also unlike the earlier study, none of the clusters exhibited a high preference for a principled ethical orientation. While outcomes for the two studies were based on the same theoretical model, comparisons of the results should be made with caution due to the different scales being used in the measurements.

Research on Ethical Issues in Rehabilitation Counseling

The ethical requirements of CRCs include adherence to the CPERC and formalized training in ethics. These requirements, and the Code itself, have been developed and refined over time based on theoretical ethical models, other ethical codes in similar fields, studies of the ethical violations of rehabilitation counselors, CRCC advisory opinion archives, national studies of rehabilitation counselors, expert panels, and stakeholder surveys (Saunders & Leahy, 2010). This section reviews landmark studies in rehabilitation ethics that helped inform changes to the CPERC and impacted the target population of certified counselors currently practicing in the field of rehabilitation.

In the 1980s, the first national studies of ethics and rehabilitation counseling helped inform the first iteration of the CPERC (Emener et al., 1987; Pape & Klein, 1986).

Pape and Klein (1986) in a national survey of rehabilitation practitioners found that only 28.8% of respondents had ever used a code of ethics to assist with an ethical dilemma. The rehabilitation specific code referred to most was the NCRA's Ethical Standards for Rehabilitation (Pape & Klein, 1986) counseling used by only 35 of the 267 participants. The study also reported that 45.1% of practitioners surveyed were aware of "ethical misconduct on the part of another rehabilitation professional, agencies, or company" (Pape & Klein, 1986, p. 11). Since the Pape and Klein study, the question of ethical misconduct awareness has not been directly addressed; however, a recent qualitative study indicated informal resolution of ethical dilemmas and reported ethical violations were still active concerns for some counselors (Tarvydas & Barros-Bailey, 2010).

Tarvydas and Barros-Bailey (2010) also addressed how well the last iteration of the CPERC addressed the ethical issues CRCs face: "When asked if the Code addressed a past ethically troubling problem, only 40% of the rehabilitation counselors responding to this question stated that it was, the majority of which (60%) said it was not (40%) or that they did not know (20%; p. 210).

Emener et al. (1987) conducted the second national survey that looked at (a) the relevance of rules drafted for the unified code to the practice of rehabilitation counseling and (b) how rehabilitation counselors responded to ethically relevant issues. The study determined that all 50 draft items were relevant to the field but found that 45.4% of respondents typically used "non-conscious awareness" to resolve the presented ethically relevant issue (Emener et al., 1987, p. 12).

A common technique used in reviewing ethical trends in counseling literature is a review of complaints against certified counselors. These reviews are used to provide

partial direction to the formulation of new ethical codes and the adaptation of formalized educational interventions (Neukrug, Milliken, & Walden, 2001; Saunders, Barros-Bailey, Rudman, Dew, & Garcia, 2007). While data on code violators are useful, they might not be representative of the counseling field as a whole. Neukrug et al. (2001) reported 2,325 ethical complaints across 141,404 credentialed counselors. Ten percent of all complaints received were investigated, resulting in actions or sanctions involving less than 0.2% of credentialed counselors.

Saunders et al. (2007) in a study of CRC ethical violations suggested that the effects of future educational interventions could be measured against the total number of complaints filed over time. The authors also acknowledged the probability that “not all violations were recognized and/or reported” (Saunders et al., 2007, p. 12). A thematic analysis of the violations found ethical issues concerning three areas: (a) competence and conduct with clients, (b) issues involving business practices, and (c) professional practice issues (Saunders et al., 2007).

From 1993 to 2006, the Commission on Rehabilitation Counselor Certification (CRCC, 2009) Ethics Committee received 113 total complaints and accepted 71 for further review. The committee found 36 violations across all rehabilitation counselors over the 14 year period. Using current estimates of the number of active CRCs, this represented an average of 0.02% of CRCs receiving sanctions or actions from the ethics committee for each year of the study (Saunders et al., 2007, 2009). It is likely that complaints that reached the ethics committee were severe in nature. The CPERC mandates informal resolution to ethical issues when appropriate and requires the reporting of violations only if informal methods fail or the ethical violation in question is

egregious (CRCC, 2009). Due to the extremely low percentage of violators found in the sample, it is difficult to justify using these complaints as a reliable basis for measuring the effectiveness of formalized ethical education. Neukrug et al. (2001) noted that these types of studies “offer evidence of trends concerning the nature of ethical complaints and ethical violations” (p. 58).

Additional information on ethical issues can be gathered through advisory opinions offered by the CRCC Ethics Committee (2009). Information on ethical issues submitted through the advisory opinion process will differ by definition from ethical complaints. An advisory opinion might be solicited by any stakeholder involved with a CRC; however, the committee will not issue an opinion in cases where actual ethical violations might have occurred (Shaw & Lane, 2008). The ability to offer advice between code iterations provides a dialogue to address emerging issues and clarify changes to the code (CRCC, 2011). Shaw and Lane (2008) conducted a content analysis of 105 advisory opinions issued by the committee between 1996 and 2006. The most frequent opinion requests came in the general areas of disclosure, confidentiality, legal concerns, informed consent, dual roles, and employer relations.

Gibson and Pope (1993) conducted a national survey of 579 certified counselors in an effort to determine (a) the degree of consensus of behavior addressed by the ACA ethics code, (b) consensus regarding behaviors not addressed by the code, (c) which behaviors were controversial and (d) which behaviors were difficult for counselors to judge. This study directly led to two publications related to CRC ethics: A 2001 national study of the ethical beliefs of CRCs (Tarvydas et al., 2001) and a 2004 comparison of those beliefs against Gibson and Pope’s results (Tarvydas et al., 2004).

Tarvydas et al. (2001) conducted a survey of 658 CRCs based on the modified Ethics of Practice Questionnaire used in Gibson and Pope (1993). Participants were asked if each of 104 behaviors were ethical or not according to the CPERC and were also asked to rate the degree of confidence in each of these judgments. High consensus on 29% of items indicated strong agreement across 14 *clearly ethical* and 23 *clearly unethical* behaviors. Seventeen behaviors qualified as *controversial*: “items with endorsement rates of between 40% to 60% (Tarvydas et al., 2001, p. 14). The authors suggested these areas require additional attention and some might be representative of emerging issues in the field. They also acknowledged that the limited scope of beliefs presented offered little context and that “in some cases it may be difficult to determine ethical behavior without a context for that behavior” (Tarvydas et al., 2001, p. 16). Additionally, the Tarvydas et al. study differed from Gibson and Pope by specifically asking counselors to rate beliefs as ethical according to the CPERC, whereas the earlier study did not qualify beliefs against any established code. This subtle modification could have swayed participants from responding based on their own ordinary moral sense and instead served as a test based on knowledge of the code itself.

Tarvydas et al. (2001) also had participants rank the effectiveness of a number of sources of ethics information. Although all sources were deemed adequate or above, there could have been difficulty in translating the effectiveness of sources for ethics information into actual impact on ethical beliefs. Turban (2012) found that 87% of 291 medical students found an ethics class relevant and 77% reported it should be repeated; however, the same study found no significant increase in correct responses across pre- and post-testing. Furthermore, Mumford et al. (2008) argued the assessment of student

reaction to formalized training in ethics did little to measure performance on ethical decision-making.

Tarvydas et al. (2004) compared the results from Gibson and Pope's (1993) national certified counselors and the Tarvydas et al. (2001) study of CRCs in an effort to determine the similarities between groups across the 88 shared items from the Ethics of Practice Questionnaire. Strong similarities were found among (a) behaviors endorsed as clearly ethical, (b) behaviors endorsed as clearly unethical, and (c) controversial behaviors leading the authors to conclude that CRCs share a core set of beliefs with nationally certified counselors. Although the authors cautioned against generalizing results to counseling in general, the study suggested that research in counseling ethics might be useful in understanding ethical issues surrounding rehabilitation counseling as well.

Tarvydas and Barros-Bailey (2010) conducted an online qualitative survey of 240 certified counselors in the United States and Canada to determine current and anticipated ethical issues facing rehabilitation counselors. The CRCs reported ethical dilemmas they had experienced in the past two years and were asked what future ethical issues they anticipated. The majority of reported dilemmas centered on the counseling relationship and confidentiality, representing over 70% of all issues. However, over 6% of respondents reported that resolving ethical issues had been a recent concern, more specifically (a) the informal resolution of ethical violations, (b) reporting suspected ethical violations, and (c) organizational conflicts (Tarvydas & Barros-Bailey, 2010, p. 208).

Organizational Culture and Ethical Action

Ethical codes and organizational policy might be in conflict (Kitchener, 2000). Additionally, the internal goals of organizations might not always align with the best interests of consumers. Lane et al. (2012) found that 41% of rehabilitation counselors felt organizational pressures had a negative influence on their ethical behavior and decision-making. The authors noted that an examination of ethical orientation in conjunction with organizational culture could be beneficial in future research: “the level of development [moral] development may influence a counselor’s perception of ethical events and culture in the workplace” (Lane et al., 2012, p. 227).

Higher levels of ethical orientation reflect more internalized ethical decision-making, suggesting a decrease in the impact of external organizational-based pressures (Van Hoose & Paradise, 1979). Tarvydas and Barros-Bailey (2010) reported conflicts with organizations and payers or employer pressures as the most frequent type of issue currently facing rehabilitation counselors. Employer or payer pressures were also one of the top three content themes counselors felt they would be dealing with in the future.

Brass, Butterfield, and Skaggs (1989) listed organizational factors such as climate and norms among precursors to unethical behavior. Relationship type and structure within the organization could also impact both opportunities for and constraints against unethical behavior in organizations.

Betan and Stanton (1999) found the emotions surrounding friendships were influential in separating those therapists who followed up on an ethical decision with action from those who did not. Additionally, the study found 50% of psychotherapists

“indicated that they would do less than they believed they should” in a scenario regarding a colleague’s drinking problem (Betan & Stanton, 1999, p. 296).

Gender

Little empirical evidence supported the idea that there were male scoring biases related to stages of moral judgment (Gibbs, 2003; Kohlberg, 1984; Lapsley, 1996; You, Maeda, & Bebeau, 2011). Gibbs (2003) noted a handful of studies that illustrated females performed higher than did males in early childhood development.

The Defining Issues Test (DIT; Thoma, 1986) is an adaptation of Kohlberg’s (1984) stages to measure the moral orientation of adolescents and adults. In a meta-analysis including over 6000 subjects, Thoma (1986) found that females scored significantly higher on the DIT but estimated “that age/education effects through the college years are over 250 times more powerful than gender differences in accounting for the variance in DIT scores” (p. 173).

Age

Age is a critical factor when examining moral development. “Age-related development is such a major theme in Kohlberg’s work that it is difficult to conceive of his work without it” (Rest, Thoma, & Edwards, 1997, p. 17). Although age remains the primary factor in moral orientation maturity, most movement in Kohlbergian stage advancement takes place in childhood, with formalized education becoming more necessary to move beyond stage four (Kohlberg, 1984; Snarey, 1985). Beyond the range of young adults, development on Kohlberg’s (1984) scale levels off and moral development becomes more dependent on education (Rest 1984; Snarey, 1985).

A national study by Gibson and Pope (1993) of 579 certified counselors found significant differences in the rating patterns of 88 ethical beliefs across the age of participants. Younger participants were more likely to endorse “addressing a client by his/her first name” and “helping a client file a complaint re: a colleague” while older participants were more likely to endorse “utilizing involuntary hospitalization,” “providing counseling to one of your friends,” “providing counseling to your student or supervisee,” and “providing counseling to one of your employees” (Gibson & Pope, 1993, p. 333). A similar study of CRCs saw no significant differences comparing individual beliefs across age (Tarvydas et al., 2001).

Overall Level of Education

Education is an important factor in moral cognitive development and level of education is often used as a variable to test moral development (Dufrene & Glosoff, 2004; Kohlberg, 1984; Rest, 1984). Moral stage development research showed education in general to be a necessary but not sufficient requirement to advance past stage four. Gibbs (2003), utilizing Kohlberg’s (1984) stages, noted that only 13% of adults had reached stage five and that all of them had completed at least some master’s level coursework.

However, studies that looked at the differences in ethical orientation of students were unable to detect differences. Dufrene (2000) administered the EDMS-R to 322 participants who were grouped according to their current educational status and found no significant differences on ethical orientation across (a) pre-internship master’s students, (b) master’s students who were currently in an internship or had completed their internship, and (c) doctoral students. Ong (2005) conducted a similar study in the field of

rehabilitation, enlisting undergraduates, graduate students, and doctoral students and also found no statistical significance among the groups on ethical orientation outcomes.

Taken together, this might suggest that while level of education is a necessary factor in lifetime moral orientation scales, it might not be a sufficient factor in the promotion of counselor-based ethical orientation stage development. More likely, the students who participated in these studies shared more similarities than differences in educational level, making significant differences on developmental scales more difficult to detect.

Certified rehabilitation counselors (CRCs) being surveyed in this study might differ on their level of terminal degree, but it is more likely that formalized ethics education or tenure would have more of an impact on ethical orientation level. Due to the relative homogeneity in CRC educational degree attainment, this factor was left off the survey in this study in favor of tenure and formalized training in ethics.

Formalized Ethics Education

Certified rehabilitation counselors typically have at least two areas that are designed to promote ethical skills. First, the Council on Rehabilitation Education (CORE, 2012) provides accreditation for rehabilitation counseling master's programs. The CORE's (2012) Student Learning Outcomes require student exposure to the CPERC and also require programs to infuse ethical concepts throughout the graduate curriculum. Secondly, the Commission on Rehabilitation Counselor Certification (CRCC, 2012) requires 10 hours of continuing education in ethics for each five year recertification.

A number of methods used to assess the effectiveness of a variety of ethics training interventions and considerable disagreement exist regarding both methods of training and how to measure the effectiveness of instruction across a number of

disciplines (Allen, Bacdayan, Kowalski, & Roy, 2005; de las Fuentes et al., 2005; Lord & Bjerregaard, 2003; Mumford et al., 2008).

Efforts to assess the impact of formalized ethics education included (a) direct observation of behavior during university courses, practicums, and internships; (b) student feedback on impact and relevance; (c) pre- and post-tests on ethical vignettes; (d) monitoring the frequency of reported ethical violations across a profession; and (e) improvements on moral or ethical measurements (de las Fuentes et al., 2005; Mumford et al., 2008; Saunders et al., 2007).

Furthermore, research concerning the effectiveness of ethics education, regardless of method, has largely proven inconclusive; only one study conducted a follow-up to measure retention of a single workshop over time (Mumford et al., 2008).

Ong (2005) found no significant differences in rehabilitation student clusters when comparing the formal level of ethics instruction or hours of instruction in ethics of undergraduate, master's, and doctoral students when utilizing the Ethical Decision-Making Scale-Revised.

Turban (2012) constructed 10 ethical vignettes with the assistance of an expert panel. During a two hour colloquium, the multiple choice responses of 291 medical students were sampled before and after the intervention. There were no significant increases in "correct" responses across any of the vignettes, although the author did report increases in performance across more concrete ethical concepts.

A national study of 579 certified counselors did not find significant differences in the rating patterns of 88 ethical beliefs when comparing formalized university ethics courses or "any ethics instruction at all" (Gibson & Pope, 1993, p. 333). Gibson and

Pope (1993) reported 29% of participants had taken a formal college ethics course and 68% had ethics instruction infused into aspects of coursework. A similar study (Tarvydas et al., 2001) involving CRCs also saw no differences when looking at “education” across 104 ethical beliefs. This may be a result of beliefs resulting from values and attitudes and not ethical knowledge and skills (de las Fuentes et al., 2005).

Hull, Wurm-Schaar, James-Valutis, and Triggie (1994) conducted a study of 38 graduate students with 20 entering the experimental group and 18 placed in the control group. The 20 students in the experimental group took a graduate-level ethics course while the other 18 member took a graduate-level human resources course. Participants completed the Sociomoral Reflection Objective Measure-Short Form (SROM-SF) at the beginning of the semester and again on the last day of classes. Results on the ANCOVA were significant at the .05 level. The experimental group retained their initial scores while the control group scores illustrated a regression on the SROM-SF scores. Hull et al. noted a tendency for this regression in some university groups and suggested that the ethics course was a factor in the maintenance of graduate students’ moral reasoning.

Lambie et al. (2010) studied 64 master’s-level students in counseling. The students were placed in a separate 13-week counseling ethics course; groups were chosen based on their emphasis of study: (a) school counseling and (b) mental health and marriage and family (MH/MF) counseling. The study found that students in the MH/MF group showed a statistically significant increase from their pre-test *p*-score on the Ethical Decision-Making Scale-Revised (EDMS-R) following the 13-week course. The EDMS-R changes for the school counseling group were not statistically significant. The authors suggested that due to the brevity of the course, “promotion of developmental growth may

be more difficult in a short period of time than the acquisition of specific content knowledge” (Lambie et al., 2010, p. 240). The authors’ conclusions also supported CORE’s requirement to infuse ethics training throughout graduate level rehabilitation counseling programs.

Jagger (2011) found that the development of ethical sensitivity and moral judgment was beneficial to some business students but not others, suggesting that a group of students who had difficulties recognizing and interpreting ethical issues were less likely to benefit from ethical interventions and less likely to operate within higher level ethical orientations.

Mumford et al. (2008) realized significant improvements in ethical decision-making in a study of 40 doctoral students in (a) data management, (b) study conduct, (c) professional practices, and (d) business practices utilizing a 10 module “sensemaking” approach; however, a follow-up survey of 19 participants showed a significant six month retention on only two of the dimensions-- study conduct and professional practices.

A handful of studies have examined the impact of formalized education in ethics, noting “ethics education focusing on decision-making cannot turn an immoral individual into a moral one, but immoral decisions or actions that a moral person may be involved in because of ignorance could be avoided by training in moral imagination and systematic moral reasoning...” (Lee & Padgett, 2002, p. 38). Rest (1984) conducted a meta-analysis on moral development training and found that although some moral education courses did show significant gains, courses could be better designed to become more powerful. The Defining Issues Test (DIT) is a measure based on Kohlberg’s (1984) developmental theory but modified for use with young adults and adults (Rest, 1984). A longitudinal

study that began in high school followed two groups--those who continued on to college and those who did not. Both groups were sampled once in high school and then three more times each of two years. Findings from the study showed a growing disparity between the groups each time they were sampled, leading Rest to conclude “that formal education is a powerful determinant of moral judgment development” (p. 23). Rest et al. (as cited in Sias, Lambie, & Foster, 2006) noted that formal education “was the most powerful demographic correlate of moral development...[accounting] for 30.0% to 50.0% of the variance in large heterogeneous samples” (p. 106).

The theoretical assumptions of Kohlberg's (1984) moral developmental theory involved a consistent upward sequence without allowing for regression. However, longitudinal studies forced a revision of his 1958 rating system when it was found that participants who had transitioned from high school into college were also showing signs of stage regression (Lapsley, 1996). A variety of explanations have been offered for this phenomenon, ranging from increased cynicism to identity questioning (Hull et al., 1994; Kohlberg, 1984). Kohlberg (1984) noted that this regression was temporary; adults returned to their previous stage or higher after college. Kohlberg also noted that this regression effect was only found in college students: “No such temporary ‘regression’ occurs in the noncollege or lower class population” (p. 61). Another revision to Kohlberg's system also included the removal of stage six from his scoring manual. Although stage six participants did indeed exist, they were exceedingly rare and shared two common characteristics: a commitment to moral development and formal training in ethics (Gibbs, 2003; Kohlberg, 1984; Lapsley, 1996). A focus on current practitioners would avoid these potentially confounding stage regression effects and instead could

focus on the educational impact of both formalized university ethics courses and continuing education hours in ethics. No studies have reported similar regression effects in the ethical orientation stage model.

Tenure

Tenure as a variable in developmental scales has largely been ignored in favor of a combination of age and education; however, there is theoretical support for the inclusion of tenure as a better measure of intuitive decision-making. Tenure can have a positive impact on moral orientation through (a) years of practice and critical evaluation, (b) increased exposure to ethical codes and ethical theory, and (c) formalized ethical training (Kitchener, 1984; Lapsley, 1996). Furthermore, “recognition, and therefore memory, is clearly enhanced by expertise since expertise depends largely on understanding redundancies” (Hogarth, 2001, p. 95).

One benefit of ethical training is to help counselors anticipate, address, and integrate more common ethical issues into intuitive responses. However, studies that have examined the ethical orientations of individuals in the field of rehabilitation counseling have been restricted to university students (Ong, 2005; Tarvydas, 1994). Additionally, prior studies utilizing the EDMS-R have also focused on students rather than practicing counselors (Dufrene 2000; Lambie et al., 2010; Ong, 2005). None of these studies reported significant contributions to ethical decision-making as a function of education level. Students lack the years of experience necessary to inform intuitive judgments and these results cannot be easily generalized to currently practicing counselors.

Tarvydas et al. (2001) conducted a nationwide survey on the beliefs of rehabilitation counselors and classified 17 of 114 behaviors as controversial. Only one of the 17 controversial behaviors was found to differ according to experience; counselors with over three years of tenure made a more confident judgment on the item “Performing work for a contingency fee” (Tarvydas et al., 2001, p. 15). However, the ethical behaviors contained in the scale might not have been complex enough to accurately represent actual issues faced in rehabilitation counseling practice (Tarvydas et al., 2001). The complexity of vignettes contained in the EDMS-R might provide a more relevant basis to assess the impact of tenure in decision-making. “Learning from experience involves noticing connections that are reinforced by subsequent experience...intuition can be thought of as a form of expertise, acquired through experience and thus specific to a particular domain” (Hogarth, 2001, p. 99). Finally, the time period between shifts in levels of hierarchical developmental theory can often be measured in years (Kohlberg, 1984). Eschewing the more utilized age and education level in favor of tenure provides a more meaningful measure for use in ethical-development measures and might better detect the impact of education on counselor development.

Measuring Improvements in Decision-Making

De las Fuentes et al. (2005) recommend four modes of assessment regarding ethics competency: (a) monitoring ethical integrity throughout university training, (b) monitoring ethical behavior in clinical practice, (c) interpersonal monitoring and feedback, and (d) assessing responses to ethical dilemmas. Measuring ethical development is a substantially more difficult task than assessing moral development

(Dufrane & Glosoff, 2004; Tarvydas, 1994; Van Hoose & Paradise, 1979). Scales must include ethical dilemmas that are relevant to participants:

Many intuitive judgments are made in contexts in which there are no explicit criteria. However, by carefully examining those situations in which criteria do exist, we can gain insight into the possible accuracy of intuitive judgment in general and, in particular, the factors that affect accuracy. (Hogarth, 2001, p. 143)

The scale used in this study, the Ethical Decision-Making Scale-Revised (EDMS-R), attempted to increase the scale's validity to counselors by incorporating ethical dilemmas relevant to the American Counseling Association's (ACA) code of ethics. Prior to selecting those dilemmas, Dufrane (2000) examined ethical inquiries made to the ACA between 1997 and 1999 and found that issues with confidentiality, the counseling relationship, and professional responsibility were common and consistent at the state and national level. These themes were heavily represented in the six dilemmas included in the EDMS-R. Shaw and Lane (2008) conducted a similar review of inquiries made to the Commission on Rehabilitation Counselor Certification (CRCC) via a content analysis of advisory opinions issued to rehabilitation professionals by the ethics committee. The top three standards cited by the CRCC ethics committee between 1996 and 2006 mirrored Dufrane's review of ACA ethical inquiries: (a) 28% counseling relationship, (b) 26% professional responsibility, and (c) 17% confidentiality.

Saunders et al. (2007) examined complaints filed against CRCs between 1993 and 2006. The top three themes concerning CRC ethical violations combined with the table of highest frequency standard citations from CRCC advisory board content analysis compared favorably with issues found in the six EDMS-R dilemmas including (a) sexual intimacies with current clients, (b) suspected ethical violations, (c) termination and

referral, (d) professional competence, and (e) boundary issues (Dufrene, 2000; Shaw & Lane, 2008).

Summary

This study sought to identify the impact of tenure, formalized ethical training, and ethical code exposure on the principled ethical decision-making of practicing certified rehabilitation counselors (CRCs). Theories of ethical decision-making and ethical orientation suggest more principled intuitive judgment could be promoted through each of these variables; however, research into these areas was either lacking or inconclusive. Historical and current research in rehabilitation counseling ethics showed that counselors rely on intuitive judgments to solve many ethical issues and that while the CPERC continues to adapt to the needs of CRCs, it is impossible to address every ethical situation. Furthermore, the lack of an established scale to measure the ethical orientation of rehabilitation counselors represents an existing gap and strong need in the field to determine the strength of counselor judgments in the absence of code-based guidance.

Recent studies in rehabilitation counseling have illustrated that external influences represent an ongoing challenge to ethical decision-making. Use of a scale based on a continuum of external and internal ethical sources of ethical behavior would be well suited to address these issues as higher levels of ethical orientation reflect more internalized ethical decision-making, suggesting a decrease in the impact of external organizational-based pressures (Van Hoose & Paradise, 1979).

Intuitive judgments represent an important precursor to any ethical decision and effective intuition is highly reliant on contextual recognition. A scale used to measure ethical decisions must also be relevant to the ethical issues of practicing CRCs. The

EDMS-R was developed utilizing ethical issues of nationally certified counselors directly related to the ACA code of ethics. Ethics content areas in the EDMS-R are strongly related to high need areas identified in rehabilitation counseling ethics literature.

Furthermore, the CPERC and the ACA code of ethics share a number of enforceable standards. Portions of the CPERC were adapted directly from language contained in the ACA code. Finally, a study comparing the ethical beliefs of ACA and CRC members found high agreement in ethical beliefs.

Intuitive decision-making is enhanced in part by experience and studies involving developmental models require a significant degree of variability in order to detect significant change. Past studies of ethical orientation in rehabilitation counseling have relied on samples of university students and, as a result, might have lacked participants with practice relevant to ethical decision-making experience and variability across the dimension of tenure. Prior research utilizing the EDMS-R was also heavily reliant on students and differences across education were largely inconclusive.

This is an important study that addresses gaps in prior research examining the ethical orientation of CRCs. The inclusion of practicing CRCs provides a population of study better suited for a professional developmental model while the EDMS-R provides CRC relevant context that offers the potential for a more accurate picture of practicing counselors. This study also sought to establish how well the EDMS-R fit the field of rehabilitation counseling, potentially addressing the additional need in the field of a reliable and valid measure of ethical decision-making.

CHAPTER III

METHODOLOGY

This chapter contains information on the (a) research design, (b) participants, (c) measures, (d) data collection procedures, and (e) data analysis methods of this study.

Following a correlational research design, the study sought to examine factors that were theoretically likely to promote more principled ethical decision-making. Additionally, an examination of the reliability and validity of the Ethical Decision-Making Scale-Revised (EDMS-R) was undertaken to gauge the applicability of the EDMS-R for use with a sample of certified rehabilitation counselors (CRCs).

Participants

Participants in the study were a group of currently CRCs active within the United States. The Commission on Rehabilitation Counselor Certification (CRCC, 2009) maintains a list of approximately 11,000 of the 16,153 active CRCs who agreed to have their email addresses available for research purposes and provides researchers the opportunity to draw a random sample of these participants (Saunders et al., 2009). Any current CRC in this pool was eligible for this study. Eligibility requirements to sit for a certification examination included, at minimum, a master's degree in rehabilitation counseling or an affiliated field (Saunders et al., 2009). Canadian CRCs were excluded from the sample. Certified rehabilitation counselors practice in a variety of settings including (a) 33.31% in the private sector, (b) 28.49% in a state or federal rehabilitation

agency, (c) 13.81% in higher education, and (d) 6.57% in the medical, psychiatric, or mental health fields (Saunders et al., 2009).

To determine the ideal sample size for the study, two methods were used. First G*Power 3.1.3 was used to calculate sample size using an a priori power analysis on a linear multiple regression random model with seven independent variables, indicating a total sample size of 75 was needed to complete the study (Faul, Erdfelder, Buchner, & Lang, 2009). Second, Green's (1991) conservative two-step process was utilized. According to Green, a medium effect size and seven independent variables require 103 participants to test against a multiple correlation hypothesis at the .05 alpha level. Mundfrom, Shaw, and Lu Ke (2005) provide minimum necessary sample sizes for "excellent-level" ($K > 0.98$) and "good-level" ($K > 0.92$) criteria across high, wide, and low levels of communality (p. 164). The minimum sample size for the excellent-level criterion for all levels of communality with a p/f ratio of 6 (30 variables/five factors) suggests a minimum of 200 participants to conduct a factor analysis. To achieve a good level criterion, the range is between 70-120 participants. Measures of fit for the path analysis require at least 10 subjects per parameter or at least 100 participants (Norman & Streiner, 2003).

Data Collection Procedures

One thousand participants were randomly selected from a nationwide pool of 11,000 CRCs. The CRCC has records on file for over 11,000 counselors who are currently certified and have opted to have their contact information made available for research. A link to the survey was sent to all 1,000 email addresses provided by the CRCC. Participants were instructed to proceed to an online survey hosted by Survey

Monkey once they completed reviewing the consent form and wished to participate. Participants were informed that no personal identifiers that could be linked back to them would be logged on the online survey (IP address; Buchanan & Williams, 2010). The author of the study was the sole owner of the account used for this online survey and this survey was the only one used with this account. After the study had concluded, the data were deleted from the account and the account was terminated.

The questionnaire consisted of 123 total questions: 112 items from the Ethical Decision-Making Scale-Revised, four demographic questions, three formalized education questions, one tenure question, and one question concerning code exposure. One informed consent question and one question asking if participants were practicing in the field of rehabilitation counseling were also included. The informed consent question followed the standard no signature consent form template provided by the Institutional Review Board (IRB; see Appendix A for approval and consent form) at the University of Northern Colorado. Participants who did not consent were disqualified from participation in the survey and redirected to a debriefing page (Buchanan & Williams, 2010).

Tuten (2010) noted a number of issues to consider prior to conducting an online survey, e.g., nonresponse error can increase due to a lack of motivation to complete surveys online. To combat this, a lottery establishing a chance at a \$100 gift card was provided as an incentive for the study. Goritz (2010) noted incentives increased the odds of survey response by 19% and increased the odds of a participant completing a survey by 27%. Participants who finished the study were redirected to a debriefing page that included the option to select a separate and unrelated link where they could choose to

enter their contact information if they wished to qualify for the drawing (Buchanan & Williams, 2010). A third party vendor with no knowledge of the study was responsible for randomly selecting a winner and issuing the lottery reward. This researcher received confirmation that the lottery had been completed and that the reward was claimed by the lottery winner.

Tuten (2010) noted a number of advantages to online surveys directly relevant to this study: (a) quick and efficient data collection, (b) convenient access to a large and dispersed sample, (c) the ability to streamline questions utilizing automated skip logic, and (d) access to an e-mail list for the target population.

Measures

Demographics

Gender. Male or female gender status was indicated by participants. This categorical variable employed dummy coding for use in the regression analysis. Although there is evidence to suggest gender differences play a role in moral development in some cultures, research in the United States did not find statically significant differences (Snarey, 1985). Thoma's (1986) meta-analysis on DIT research concluded that "our best estimate is that age/education effects through the college years are over 250 times more powerful than gender differences in accounting for the variance in DIT scores" (p. 173). Males are overrepresented in ethical complaints; while over 70% of CRCs are female, over 50% of ethical complaints over a 16 year period involved men (Saunders et al., 2007, 2009).

Age. As continuous variable, age was sampled in full years. Although age is the primary factor in moral orientation maturity, most movement in stage advancement takes

place in childhood with formalized education becoming more necessary beyond stage four (Kohlberg, 1984; Snarey, 1985). While age is a critical factor in moral development, tenure is a better theoretical measure of ethical orientation. Age was checked against tenure to rule out any unique contribution to principled ethical orientation.

Formalized Ethics Education

Formalized ethics education was measured by three separate education demographics: (a) participation in a CORE accredited rehabilitation counseling education program, (b) credit hours in university ethics courses, and (c) estimated number of continuing education hours in ethics completed. Higher education can facilitate post-conventional morality stages and formalized training has been shown to predict higher order moral orientation (Lapsley, 1996; Rest, Navarez, Bebau, & Thoma, 1999). However, there is little evidence to support that single ethics education interventions result in more principled approaches to ethics. The time period between shifts in levels of hierarchical developmental theory can often be measured in years (Kohlberg, 1984). Combining a variety of educational measures over the tenure of a counselor might better detect the impact of education on counselor development.

The Council on Rehabilitation Education (CORE, 2012) lists ethical behavior as a critical element for rehabilitation counseling education and requires that ethical training be infused “throughout all courses of the curriculum” (p. 24). The Council on Rehabilitation Education student learning outcomes require student know and use the CPERC across a variety of curriculum areas as well as apply these skills during coursework, practicums, and internships. Participants were asked, “Did you receive a master’s degree from a CORE accredited rehabilitation counseling education program?”

The long term impact of university ethics courses is contentious owing to the variety of structure, content, and measures used to determine effectiveness (Mumford et al., 2008). Credit hours in university ethics courses were measured using a two item response tree: “Did you take any university courses dedicated solely to ethics?” and “If so, how many total credit hours of ethics education did you take during your time at university?” Responses of “no” on the first item resulted in a translation of the value to zero, establishing formalized ethics education as a continuous independent variable.

Continuing education training in ethics was measured as a one item question: “Please estimate how many continuing education clock hours in ethics you have completed since you first became a Certified Rehabilitation Counselor.” One option to satisfy the requirements of CRC certification renewal was through the completion of 100 hours of continuing education every five years. Ten of those hours must be in ethics. Rehabilitation counselors who were new or those who sought to renew certification through other means might have accrued zero hours of training. This was a continuous independent variable. Formalized training has been shown to promote higher order moral orientation (Rest, 1999).

Tenure

The tenure variable was recorded by asking the two item question: “How many years and months have you worked in the rehabilitation field since you became a Certified Rehabilitation Counselor?” Some CRCs had not completed a full year of tenure in the rehabilitation field, while others might have had the CRC credential but no field experience. Years were converted to months to classify tenure as a continuous independent variable in total months worked. Kitchener (2000) suggested that

“individuals have an immediate, prereflective response to an ethical situation on the basis of the sum of their prior ethical knowledge and experience” (p. 12). Through CRCC continuing education requirements, tenure provided additional exposure to formalized ethics education (CRCC, 2012).

Code Exposure

Code exposure was measured by the one item question: “How often did you consult the CRCC’s Code of Professional Ethics for Rehabilitation Counselors when faced with ethical issues in the past year?” The frequency response choices were taken from Vagias’ (2006) Likert-type scale response anchors: (a) *Never*; (b) *Rarely, in less than 10% of the chances when I could have*; (c) *Occasionally, in about 30% of the chances when I could have*; (d) *Sometimes, in about 50% of the chances when I could have*; (e) *Frequently, in about 70% of the chances when I could have*; (f) *Usually, in about 90% of the chances I could have*; and (g) *Every time*. Likert scales of this type can be used as continuous variables. Zakaria, Haron, and Ismail (2010) found that knowledge of ethical codes indirectly supported ethical judgments through a heightened recognition of ethical problems. Ethical vignettes contained in the EDMS-R were based on the ACA code, which shares many features with the CPERC. The current CPERC (2009) adopted many enforceable standards from the ACA code (CRCC, 2009). Tarvydas et al. (2004) found evidence that certified counselors shared a core set of ethical beliefs when endorsing clearly ethical, clearly unethical, and controversial items. Code of conduct research suggested that students behaved more ethically and were more likely to act when they viewed other students behaving unethically when a code of conduct was in place (McCabe, Trevino, & Butterfield, 2001).

Ethical Decision-Making Scale-Revised (EDMS-R)

Kohlberg (1984) and Rest (1984) helped establish and refine the process of moral judgment measurement; however, researchers interested in measuring ethical judgments required a separate scale. The Ethical Judgment Scale (EJS; Van Hoose & Paradise, 1979) was created to address the lack of instruments measuring ethical issues. Tarvydas (1994) noted that although the EJS, which was developed in the 1970s, had a solid theoretical foundation, it might lack the benefit of contemporary ethics literature.

The first version of a modern ethical judgment scale, the Ethical Decision-Making Scale (EDMS), suffered a number of flaws related to instrument construction (Dufrene & Glosoff, 2004). The Ethical Decision-Making Scale-Revised (EDMS-R) was developed in 2000 by Dufrene to improve upon the problems expressed with the original version of the EDMS (Dufrene & Glosoff, 2004). The measure kept the original EJS theoretical framework, the Ethical Orientation Model, originally proposed by Van Hoose and Paradise (1979), which was based on Kohlberg's (1984) stages of moral development and added the structure of the established Defining Issues Test (DIT), a scale of moral reasoning.

The EDMS-R consists of six vignettes derived from the ACA's Code of Ethics.

The vignettes are followed by three answer sections:

1. The "A" answer section: The counselor chooses an ethical course of action from six provided choices or can enter their own open ended response.
2. The "B" answer section consists of 12 issues relating to the vignette. Participants are asked to rank these issues from 1-5 (*very important to very unimportant*).

3. The “C” answer section, which has respondents rank their top four issues from the “B” section in order of importance (Dufrene & Glosoff, 2004).

The EDMS-R provided two outcomes: the level-score and the P-score. The level score was calculated utilizing the participants’ rankings of their top four reasons in section C. Each item in the B section was coded to either an ethical orientation stage (1-5) or a faking control. Subjects chose and ranked the four most important issues from the “B” section; points were accumulated based on their order of importance. For example, if a subject assigned a level 2 coded item from section B as their most important item in section C, their level 2 score would receive four points. If another level 2 coded item was selected as second most important, three more points would be assigned to their level 2 score and so on. This process continued across all six dilemmas for a total of 60 points to be assigned across five levels (Dufrene, 2000; Dufrene & Glosoff, 2004). Appendix B contains a version of the EDMS-R with section B coding for further illustration.

The P-index score or principle score also relied on section C rankings of section B coded items; however, only level five or principle coded items were utilized. Each of the six dilemmas had two principle coded items, with the exception of the second dilemma which contained three. If a participant ranked a principle item as most important and the second principle item in that vignette as third most important, they would accumulate 4+2 points toward a total of 44 across all dilemmas. The total points accumulated on level five items across all dilemmas were divided by .60 to provide the principle score. The principle scores ranged from zero to 73. “P index scores are interpreted as the degree to which a participant thinks principled considerations are important in making ethical

decisions” (Dufrene & Glossoff, 2004, p. 5). These scores served as the dependent outcome variable for the primary analyses.

Reliability of the Ethical Decision-Making Scale-Revised. The EDMS-R was administered to 62 participants to determine a test-retest reliability of the principle score “reaching Meherens and Lehmann’s (1987) acceptable reliability ($r = .65$) concerning groups” (Dufrene & Glossoff, 2004, p. 12). The author did note an unstructured testing environment as a potential limitation of the study (Dufrene, 2000).

Content validity of the Ethical Decision-Making Scale-Revised. A major flaw in the predecessors to the EDMS-R was a lack of a relevant connection to the ethical dilemmas being experienced by the group being surveyed (Dufrene, 2000; Dufrene & Glossoff, 2004). The EDMS-R resolved this issue by utilizing the ACA’s code to construct dilemmas that were relevant to counselors and that also applied to Van Hoose and Paradise’s (1979) stages of ethical orientation. Content validity was also enhanced by the introduction of “complex-sounding but meaningless items” (Dufrene, 2000, p. 86).

Construct validity of the Ethical Decision-Making Scale-Revised Dufrene (2000) established construct validity for the EDMS-R in a number of ways. Initially, a panel of expert judges reviewed the items and dilemmas on the scale and answered three questions: (a) Were the six presented dilemmas relevant to the ACA Code of Ethics?, (b) Did the ethical orientation levels assigned to the individual items correspond with the ethical orientation model of Van Hoose and Paradise (1979)?, and (c) Were the individual items attached to each vignette relevant to the issue presented? The three member expert panel agreed that each of the dilemmas was relevant to the ACA code. Those items that did not have the agreement of two of the three expert judges on applicability to the ACA

code were revised prior to including the items. This process was repeated for relevance to the ethical orientation model as well.

Dufrene (2000) then measured the internal consistency of sections B and C by testing 102 participants and correlated the B item ratings with the C item responses. Sixty-five of the 72 correlations were statistically significant at the $p < .01$ level.

Additional evidence that the scale matched the external to internal influence of the Ethical Orientation Model was provided through a principal axis analysis and Cattell's scree test indicating a two factor internal and external solution (Dufrene, 2000).

Finally, a factor analysis was conducted to reduce the number of items necessary for inclusion into the EDMS-R. Factors were examined using a principle axis analysis with a varimax (orthogonal) rotation.

Criterion-related validity of the Ethical Decision-Making Scale-Revised. The third phase of Dufrene's (2000) study attempted to use educational level to predict scores on the EDMS-R. Results across the three educational levels did not produce statistically significant P -scores. Dufrene suggested that this result might be due to a tendency of counseling educators to promote higher order orientations in their students. Tenure might have reflected a separate method of criterion validity due to a greater range of years of experience and direct involvement with ethical issues.

Need for further testing. Dufrene and Glosoff (2004) noted that the EDMS-R could benefit from further research including the utilization of different population samples. However, to date only a handful of studies have utilized the measure (Lambie et al., 2010; Ong, 2005; Walton, 2007).

Data Analyses

The IBM-Statistical Package for Social Sciences (SPSS) version 21 was used for the majority of statistical analyses. The add-on module IBM-SPSS Analysis of Moment Structures (AMOS) version 21 was used to test the structural equation model as well as run the confirmatory factor analysis on the EDMS-R.

Descriptive Statistics

Means, standard deviations, and range were provided for all descriptive statistics. Simple correlations between and among numerical variables were examined using Pearson correlation coefficients. All significance tests were run at the $\alpha = .05$ level with the exception of the Kolmogorov-Smirnov test of normality.

A simultaneous multiple regression analysis was run to determine the unique contributions of all demographic variables to the p -score of the EDMS-R. “P index scores are interpreted as the degree to which a participant thinks principled considerations are important in making ethical decisions” (Dufrene & Glosoff, 2004, p. 6). As gender was a categorical independent variable, dummy coding was used to establish seven total independent variables for the multiple regression equation. A number of these independent variables (university education, continuing education) were conceptually correlated to each other. One suggestion to address this issue was to utilize unique part contribution (squared semipartial correlations) to express the unique contribution of the independent variables to the dependent variable (Tabachnick & Fidell, 2001).

Internal consistency was run on the EDMS-R using a Cronbach alpha statistic. A residuals plot analysis was conducted to test violations of assumptions.

Q1 How are formalized ethics education, tenure, and ethical code exposure related to ethical orientation?

A path analysis is a subset of structural equation modeling used to test how well the data fit theoretical models (Hutchinson, 2004). Figure 4 provides a visual representation of a four-variable over-identified causal path analysis model for this study.

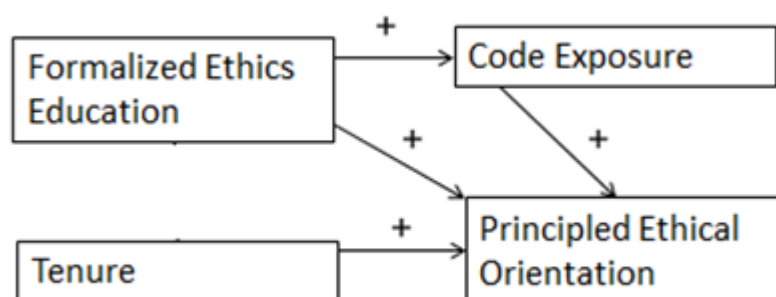


Figure 4. Four-variable over-identified causal path analysis model.

Four direct effects were calculated for the variable combinations of (a) formalized ethics education (EDU) and code exposure (CODE), (b) EDU and principled ethical orientation (ORI), (c) TEN and ORI, and (d) CODE and ORI. Indirect effects were calculated for EDU and ORI with CODE as an intermediate variable. Global acceptability for the over-identified model was tested using a Chi-squared goodness-of-fit statistic. Indices for the path analysis were calculated using the analysis of moment structures (AMOS) structural equation modeling program. Additional tests of model fit were also conducted including the root mean squared error of approximation (RMSEA) and a number of baseline fit indices. Utilizing multiple measures of fitness in a path analysis is standard practice due to variability in how fitness is approached in each of

these measures (Hutchinson, 2004). There were six data points across four parameters estimated – 1 (constant) = 1 *df*.

Q 2 Is the Ethical Decision-Making Scale Revised (EDMS-R) a reliable and valid scale for use in the field of rehabilitation counseling?

An orthogonal rotation (varimax) confirmatory factor analysis (CFA) was used to test the applicability of the EDMS-R to rehabilitation counselors. Confirmatory factor analysis is utilized to test a priori established theoretical models against data obtained after the establishment of the structure (Tabachnick & Fidell, 2001). The CFA utilized an established theoretical structure--Van Hoose and Paradise's (1979) stages of ethical orientation: (a) punishment, (b) institutional, (c) societal, (d) individual, and (e) principle or conscious.

Van Hoose and Paradise (1979) maintained that these stages were "qualitatively discreet" (p. 37). Therefore, this CFA utilized a varimax rotation due to the orthogonal nature of the construct. Prior research also supported the independence of these ethical stages (Van Hoose & Paradise, 1979).

Items from section B of the EDMS-R had already been established by Dufrene (2000) as variables suited for use in a factor analysis. There were 62 total B-level items distributed across five categories that were coded by expert raters to the five stage ethical orientation model. Confirming that these coded variables were related to the theoretical structure of the ethical orientation scale established construct validity of the EDMS-R for use in rehabilitation counselor ethics research.

Summary

No studies have examined the ethical orientations of currently practicing rehabilitation counselors and factors that might promote ethical development. Due to the

nature of online surveys, the researcher took care to ensure ethical online practices were observed. This study utilized a multiple regression analysis to determine the unique contribution demographic variables that were theoretically related to principled ethical decision-making. Structural equation modeling was used to determine how well the data fit the hypothesized model. The study also conducted a confirmatory factor analysis to determine the applicability of the EDMS-R to the field of rehabilitation counseling utilizing the theoretical framework of the stages of ethical orientation. A number of secondary relationships between and among numerical variables were analyzed. The results are presented in Chapter IV.

CHAPTER IV

RESULTS

This chapter contains the results from the statistical analyses conducted to answer the research questions from Chapter I and III as well as additional supplementary analyses conducted to add to the understanding of the primary analyses. The chapter includes information on missing data management, descriptive statistics, zero-order variable correlations, one-way analysis of variance (ANOVA) statistics, results from the Structural Equation Model (SEM) used to test the proposed theoretical framework, results from the confirmatory factor analysis (CFA), and results from two supplementary exploratory factor analyses (EFA).

Missing Data Management

Missing data management presented a substantial challenge prior to data analysis. Case deletion, deduction (when possible), and expectation maximization (EM) were employed to achieve a working dataset. An examination of item attrition found a number of issues with survey completion. Seventeen respondents failed to complete the IRB consent and were subsequently removed. Furthermore, 32 cases where participants answered demographic items but did not complete any scale items were also deleted. Through an examination of response rates on items, a retention threshold of those completing at least two-thirds of the survey was established. Two natural cutoff points emerged where response attrition diminished considerably and a further 23 cases were

removed from the dataset. One case was removed due to a participant failing to respond to the “Level C” dilemma rankings. These ranking were critical to the calculation of the principle index score.

A frequency table was generated to identify remaining missing values in the dataset and deductive missing values imputation was utilized where possible for missing level C rankings. If an individual had clearly identified four preferred responses in the B section and omitted the fourth “c” response, the actual value was inserted into the final case. For example, one respondent had completed all of their section B items, indicating that three items were ranked “position 1” *very important*. These cases were ranked as their *most important*, *second most important*, and *third most important* items. The respondent then failed to rank their *fourth most important* item. By looking at the individual responses, they had indicated only one item as a ‘2’ on the Likert scale. This response was deductively imputed as their *fourth most important* response. This technique was only available for C section scores where the corresponding B section was complete and there were no conflicts with multiple importance ratings. This method was utilized to impute two missing cells in the dataset.

Cases were checked to ensure ranks matched item ratings and data were manually crosschecked for consistency. Particular attention was given to potential influential cases. While a number of extreme values were identified, none were deemed to be out of the potential range for the body of counselors surveyed. In two cases, it was apparent that the respondent either did not understand the survey or was filling out information randomly. One of these participants matched the pattern of “excessive use of the same response category” (Johnson, 2010, p. 159). These responses were not congruent with

their prioritization of the items in the previous section and these cases were subsequently removed.

A missing value analysis was run using IBM SPSS Version 21 (2012) and Little's Missing Completely at Random (MCAR; 1985) test was conducted to determine whether multiple imputation techniques were necessary for the remaining missing data points or if the randomness of missing data supported the utilization of a single imputation method. The MCAR test resulted in a $X^2 = 2599.40$ ($df = 2871$; $p < 1.00$), which indicated that the remaining data were "missing completely at random." At this point, only 72 individual values or 0.71% of all dataset values were missing. The expectation-maximization (EM) is useful for determining imputation values when variables are missing less than 5% of values. No variables exceeded this limit with one missing four items (4.3%), four missing three items (3.2%), 12 missing two items (2.1%), and 30 variables missing one item. Since the 5% threshold was not violated, the EM algorithm was employed to determine the maximum likelihood of the remaining missing values; these values were used for the imputation of all remaining missing values. Expectation-maximization is an iterative procedure that uses existing observations to produce a lower bound in the E-step, the M-step, and then maximizes this bound in the M-step. This process is run until convergence is achieved (Dellaert, 2002). A full discussion of limitations created by missing values is presented in Chapter V.

Survey Response-Retention Rates

Invitations to participate in the survey were disseminated via email to 1,027 current certified rehabilitation counselors (CRCs) on October 16, 2012. The contact information was the most current information the Commission on Rehabilitation

Counselor Certification (CRCC) had on file. Eighty-three of the addresses returned errors and were counted as “undeliverable” for a potential pool of 944 participants. Two follow-up reminders were sent to those 944 addresses on October 29th and November 6th. The survey remained open for 22 days and was closed on November 7, 2012. One hundred sixty-eight participants arrived at the survey landing page representing a response rate of 17.80%. At least one item was answered by 152 participants and the survey was completed by 97 participants for a retention rate of 63.81% (Goritz, 2010). Further discussion on response and attrition issues are discussed in the narrative of Chapter V. Ninety-four cases were retained for the data analysis.

Participant Demographics

The final sample consisted of 24 (25.5%) males and 70 (74.5%) females (see Table 3). This roughly corresponded to the CRCC’s (2008) own reports of a “general certificant population of 70% women” (p. 2). The education level of participants also mirrored CRCC reports with 85 (90.4%) of participants holding a master’s degree and 9 (9.6%) respondents holding a doctorate. Participant ages ranged from 25 to 72 with a mean age of 46.87 years ($SD = 11.73$). Again the sample conformed to reports of rehabilitation counselor demographics where roughly half of counselors are 50 or older (CRCC, 2008).

Table 3

Participant Demographics

Demographics	<i>n</i>	<i>M</i>	<i>SD</i>
Participants	94		
Gender Composition			
Male	24		
Female	70		
Age	94	46.87	11.73
Educational Attainment			
Master's Degree	85		
Doctoral Degree	9		
CORE Accreditation Status of Program			
CORE Accredited Program	80		
Not CORE Accredited	14		
University Courses in Ethics			
Yes	72		
No	22		

Respondents reported a variety of primary work settings (see Table 4); the largest group of 45 (47.5%) worked in the state/federal vocational rehabilitation system. The next largest respondent group was private practice practitioners (11.7%), followed by 8.5% private practice practitioners, 8.5% working in the college or university setting, 5.3% working for private non-profit rehabilitation centers, 4.3% working in a medical center or general hospital, 2.1% working for insurance companies, 2.1% working in mental health centers; 9.6% of participants worked in “other” settings.

Table 4

Primary Work Setting

Work Setting	<i>n</i>	Percent
State/Federal	45	47.9
Private Practice	8	8.5
College or University	8	8.5
Private/Proprietary	11	11.7
Private Non-Profit	5	5.3
Insurance Company	2	2.1
Medical Center/Hospital	4	4.3
Mental Health Center	2	2.1
Other	9	9.6

Descriptive Statistics

Participants were asked to report a number of descriptive statistics used in the analysis including their age, the number of credit hours of graduate courses they had completed in ethics, an estimate of ethics continuing education clock hours completed, their years and months of experience in the field of rehabilitation, and how frequently they consulted the CPERC when faced with an ethical issue in the past year. Descriptive statistics of participants can be found in Table 5.

Table 5

Descriptive Statistics for Select Independent Variables

	n	Minimum	Maximum	M	SD	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
Age	94	25	72	46.87	11.73	-.21	.25	-.98	.49
Continuing Education Clock Hours	94	.00	5.71	3.13	1.18	-.77	.25	1.32	.49
Graduate Credit Hours in Ethics	94	.00	3.04	1.35	.784	-.60	.25	-.40	.49
Frequency of Ethical Code Consultation	94	1	7	2.78	1.49	1.17	.25	1.25	.49
Total Months in Field	94	0	413	134.59	107.41	.82	.25	-.36	.49

Due to the specific population sampled, issues with skewness and kurtosis on variables were anticipated. Skewness and kurtosis statistics exceeded reasonable limits for continuing education clock hours and frequency of ethical code consultation, while graduate clock hours in ethics and total months in the field also exceeded the threshold of twice the standard error for skew. Multiple transformations were conducted for the variables in question. Utilizing a natural log + 1 transformation, plots for both continuing education clock hours and graduate credit hours in ethics conformed to linear expectations; subsequently, these figures were substituted for the raw scores in further analysis and are reported in Table 5. Figures 5 and 6 illustrate the impact of these transformations. Transformations for other descriptive variables yielded no discernible benefits over raw scores so raw scores were retained for analysis despite these violations. The only variable to achieve significance on the Kolmogorov-Smirnov test of normality was the principle index score (dependent variable) with $df(94) = .077, p < .20$ (this was

the lower bound of significance on the Kolmogorov-Smirnov test). The frequency histogram for the principle index score can be found in Figure 7.

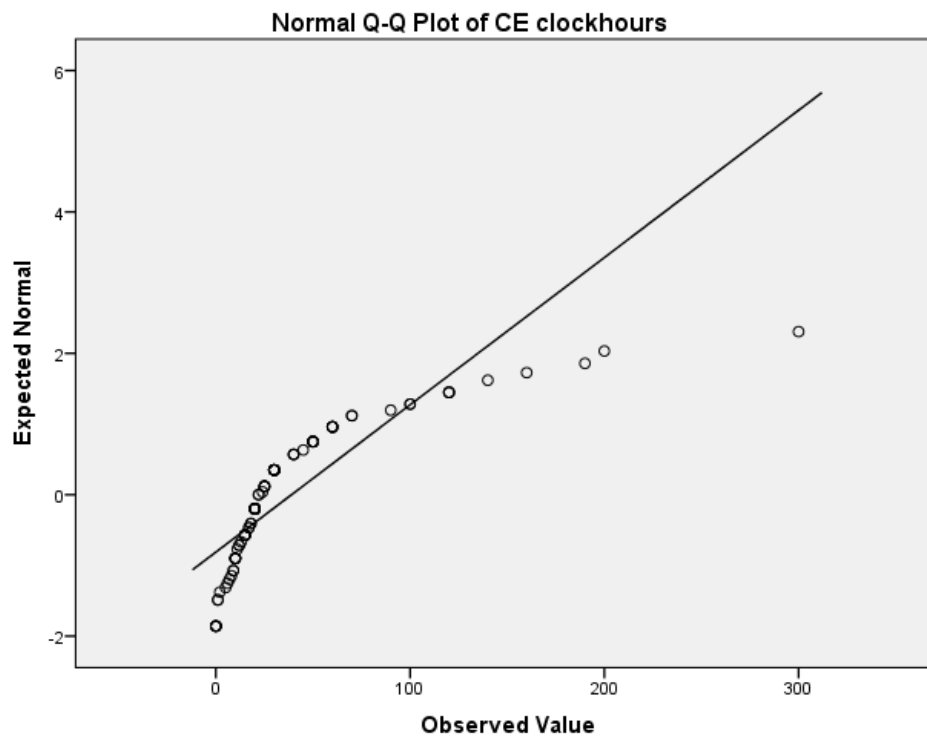


Figure 5. Plot of continuing education clock hours.

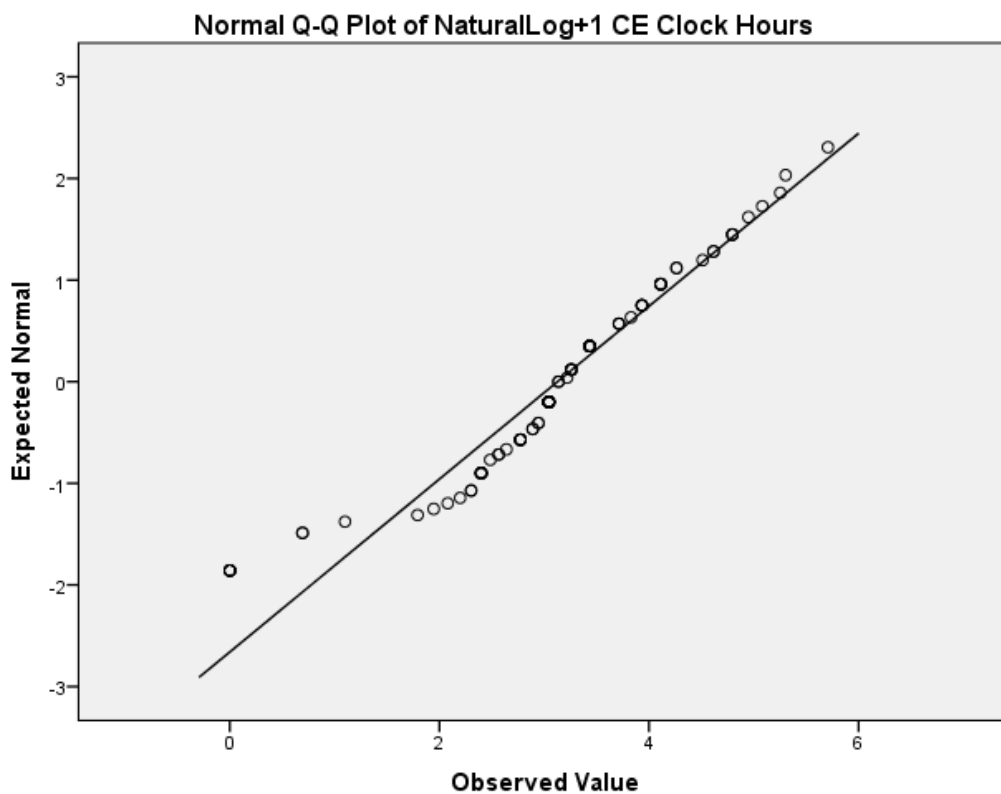


Figure 6. Plot of natural log (continuing education clock hours+1).

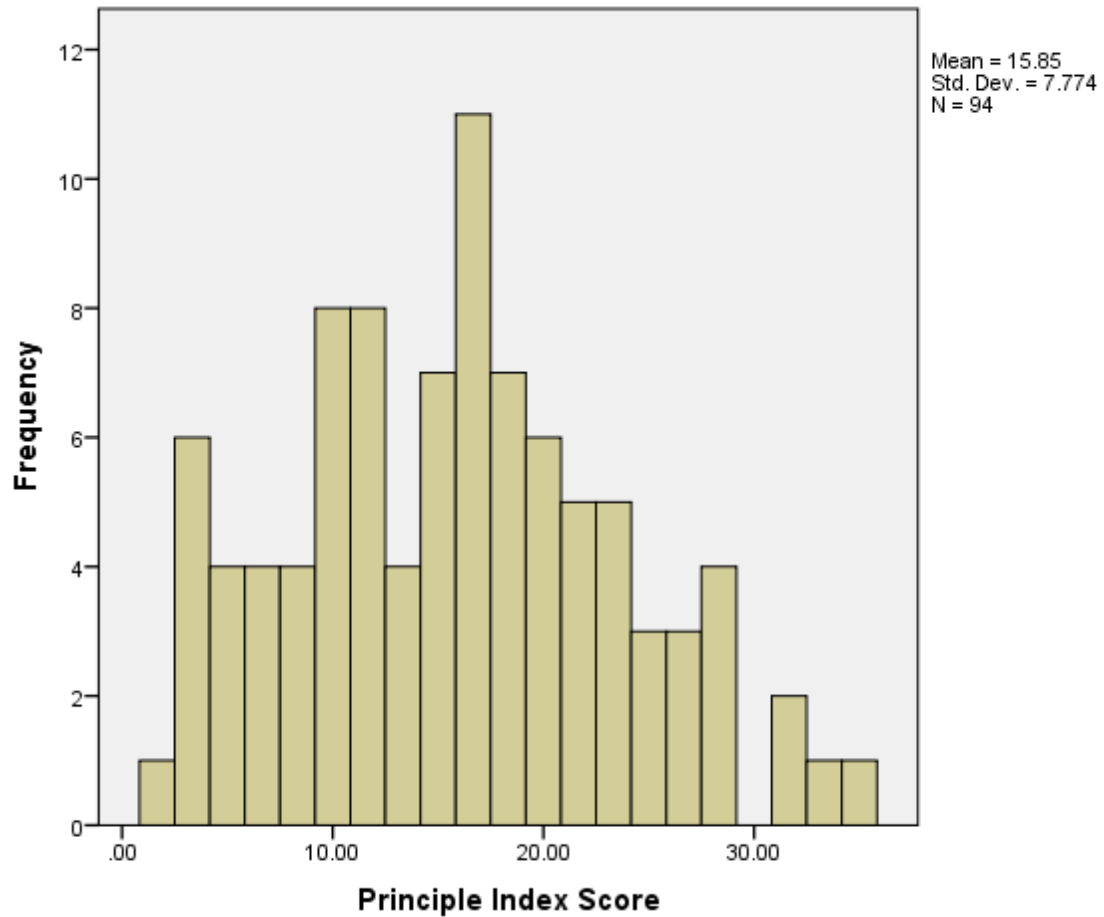


Figure 6. Frequency histogram of principle index score.

Frequency of Ethical Code Consultation

When participants were asked how often they consulted the CPERC when faced with an ethical issue in the past year, 16 CRCs (17%) never referenced the code; 32 (34%) selected *Rarely, in less than 10% of the chances when I could have*; 24 (25.5%) chose *Occasionally, in about 30% of the chances when I could have*; 12 (12.8%) selected *Sometimes, in about 50% of the chances when I could have*; 3 (3.2%) indicated *Frequently, in about 70% of the chances when I could have*; 3 (3.2%) chose *Usually, in*

about 90% of the chances I could have; and 4 (4.3%) indicated they consulted the CPERC *Every time* they experienced an ethical issue.

Internal Consistency Reliability Analysis for the Ethical Decision-Making Scale-Revised

Internal consistency reliability for the Ethical Decision-Making Scale-Revised (EDMS-R) was estimated using Cronbach's alpha. The 96 item scale yielded acceptable internal consistency reliability for use in human subject research ($\alpha = .74$; George & Mallery, 2003).

Bivariate Correlations Between Variables

Zero-order correlations between variables were calculated using the product-moment correlation coefficient. Pearson r results and indicators of significance are presented in Table 6. Only three correlations were significant. As was expected, total months in field showed a strong positive correlation with the reported hours of continuing education in ethics completed by participants ($r = .61$). Unsurprisingly, total continuing education credit hours in ethics also had a significant relationship with the age of participants ($r = .38$). Age and total months in field also expressed an expected positive relationship ($r = .54$).

The dependent variable principle index score was not significantly related to any of the independent variables. Both temporal developmental indicators failed to illustrate zero-order significance to principle index scores with comparisons between age ($r = .14$) and months in field ($r = .07$).

Table 6

Correlation Matrix for Continuous Variables (2-tailed)

	Age	FIM	CODE	CLHR	CDHR	PI
Age	-	.54**	.14	.38**	.00	.14
FIM	.54**	-	.04	.61**	-.05	.07
CODE	.14	.04	-	.09	.14	-.08
CLHR	.38**	.61**	.09	-	.07	-.08
CDHR	.00	-.05	.14	.07	-	-.03
PI	.14	.07	-.08	-.08	-.03	-

Note. FIM = total months in field; CODE = how often CPERC consulted in past year; CLHR = estimated continuing education clock hours completed in ethics; CDHR = number of university credit hours completed in ethics courses; PI = principle index score. $P < .01^{**}$.

Group Difference Comparisons

A series of one-way ANOVAs was run to determine if significant group differences emerged between secondary demographic data and the dependent variable. No omnibus F -test results achieved statistical significance for a principle index score including outcomes for gender, $F(1, 93) = .46, p = .46$, for current employment status in field, $F(1, 93) = 1.6, p = .21$, primary employment setting, $F(8,93) = 1.1, p = .41$, highest degree attained, $F(1, 93) = 3.2, p = .08$, exposure to ethics in graduate coursework, $F(1, 93) = 1.43, p = .24$, or level of code exposure $F(6, 93) = .73, p = .63$.

A supplementary one-way ANOVA was conducted to see if individuals in the largest primary work setting (state-federal vocational rehabilitation) differed from the rest

of the sample on the dependent variable. There was no significant difference between state vocational rehabilitation employees and non-state vocational rehabilitation employees on principle index scores $F(1, 93) = .05, p = .83$.

Exploratory Regression Analyses

Two exploratory linear regression analyses were conducted; however, due to insignificant zero-order correlations to the dependent variables, no significant results were expected. The first simultaneous regression analysis was run to determine the combined contribution of primary independent variables (months in field, code exposure, and formalized ethics education measures) toward explaining variance found on the principle index dependent variable. The second simultaneous regression analysis was conducted to establish what (if any) additional contribution could be explained through the addition of demographic variables to the regression equation.

The first simultaneous regression was conducted with total months in field, frequency of CRC code consultation, credit hours in university ethics courses, and estimated continuing education hours in ethics as independent variables. Results from this regression were not significant $R^2 = .03, F(4, 89) = .73, p = .58$, indicating that these four primary variables explained only 3.2% of the variance found for principle index scores.

A number of supplementary demographic variables were included in the second regression analysis to determine if the addition of items of secondary interest could yield a significant contribution toward explaining the dependent variance. The four independent variables from the first analysis were retained and age, current vocational status in rehabilitation, CORE accreditation status of graduate program, gender, highest

degree attained, presence of professional ethics in graduate coursework, and whether or not individuals had taken formal university courses in ethics were added to the equation as predictors toward principle index scores. These 11 variables also failed to account for a significant percentage of explained variance (12.5%) $R^2 = .13$, $F(11, 93) = 1.07$, $p = .40$.

Structural Equation Model

Q1 How are formalized ethics education, tenure, and ethical code exposure related to ethical orientation?

More specifically, the direct effects were calculated for the variable combinations of (a) formalized ethics education (EDU) and code exposure (CODE), (b) EDU and principled ethical orientation (ORI), (c) TEN and ORI; and (d) CODE and ORI. Indirect effects were calculated for EDU and ORI with CODE as an intermediate variable.

Global acceptability for the over-identified model was tested using a Chi-squared goodness-of-fit statistic. Indices for the path analysis were calculated using the Analysis of moment structures (AMOS) structural equation modeling program. Additional tests of model fit were also conducted including the root mean squared error of approximation (RMSEA) and the comparative fit index (CFI) among other measures of fit.

The proposed theoretical path analysis model was tested using IBM AMOS Version 21.0 (Arbuckle, 2006a). The latent variable, formalized education (EDU) was created utilizing the observed variables of credit hour (CREDHR) and clock hour (CLOCKHR). Any participants who reported credit hours completed in university ethics courses (UNICOUR) had provided information on UNICOUR status in addition to a credit hour weight; therefore, a third variable, UNICOUR, was dropped from the formalized education latent variable.

The structural model was successfully tested, resulting in an absolute fit $\chi^2 = 29.40$, ($df = 4$, $p = .000$). The p -value failed to meet the .05 significance level; however, a rejection of the null hypothesis in this case would indicate a significantly worse fit (Hutchinson, 2004). Additional measures of fit were considered; no measures recommended retaining the proposed model. The model failed to exceed the goodness of fit index threshold of .95 (indicative of good model fit) with GFI = .90; likewise, the adjusted goodness of fit index (AGFI = .63) was also insignificant. Both the root mean square error of approximation (RMSEA = .261 with a lower boundary of .18 and an upper boundary of .35) and comparative fit index (CFI = .04) were also in agreement to reject the proposed model. Standardized estimates for the proposed model can be found in Figure 8; however, these numbers are not reported elsewhere since no fit estimates recommended the model be retained. Due to insignificant zero-order correlations between independent variables and the variable of interest and a series of corresponding insignificant one way ANOVAs, no further model modifications were tested.

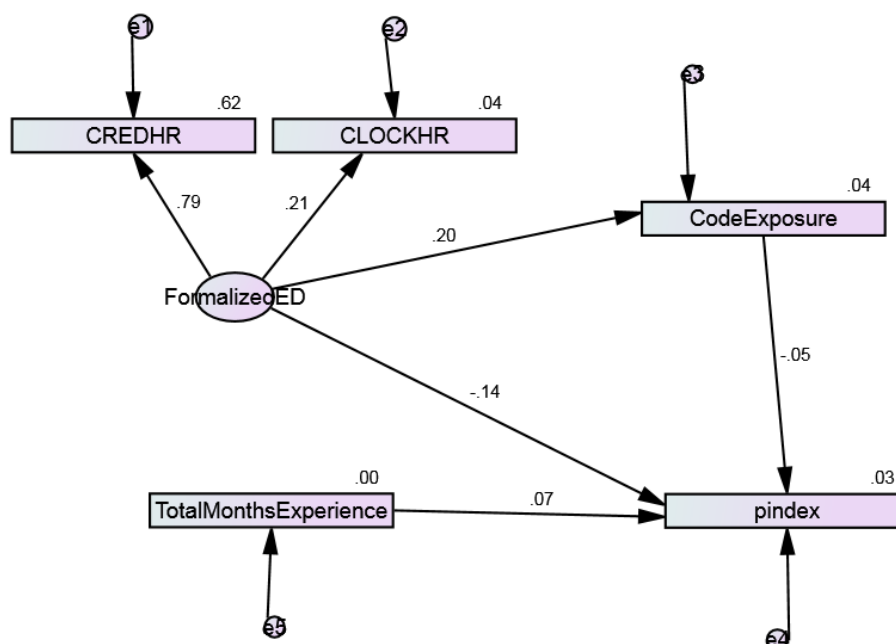


Figure 8. Structural equation standardized estimates for proposed structural equation model.

Confirmatory Factor Analysis

Q2 Is the Ethical Decision-Making Scale Revised (EDMS-R) a reliable and valid scale for use in the field of rehabilitation counseling?

An orthogonal rotation (varimax) confirmatory factor analysis (CFA) was conducted to test the applicability of the EDMS-R to rehabilitation counselors. The CFA is utilized to test a priori established theoretical models against data obtained after the establishment of the structure; therefore, this model was not subject to post-hoc manipulation (Tabachnick & Fidell, 2001). The CFA utilized an established theoretical structure--Van Hoose and Paradise's (1979) stages of ethical orientation: punishment, institutional, societal, individual, and principle or conscious.

Van Hoose and Paradise (1979) maintained that these stages were "qualitatively discreet" (p. 37). Therefore, this CFA utilized a varimax rotation due to the proposed

orthogonal nature of the construct. Prior research supported the independence of these ethical stages (Van Hoose & Paradise, 1979).

A confirmatory factor analysis on the EDMS-R was tested using AMOS Version 21.0 (Arbuckle, 2006a). The analysis utilized the 62 B-level items corresponding to the five theoretical levels present in the scale and did not include the 10 “faking” items. It is essential to note that due to sample size issues, the CFA could not be properly conducted—the proposed solution for this CFA was inadmissible as the correlation matrix was not positive definite. “Non-positive definite covariance matrices occur when the determinant of the matrix is zero or the inverse of the matrix is not possible. This can be caused by...a sample size less than the number of variables” (Schumacker & Lomax, 2004, p. 45). The CFA requires 134 distinct parameters to match the 62 scale items, five latent level factors, and 67 associated error terms while the dataset yielded only 94 useable cases. IBM SPSS Amos 21.0 can produce estimates of variances and covariances that yield covariances matrices that are not positive definite (Arbuckle, 2006a). The following analysis was conducted utilizing this inadmissible solution and limitations of this approach are discussed in Chapter V.

The resulting absolute fit chi-square = 3546.37, $df = 1819$, $p = .000$. Similar to the SEM, a failure to attain a significant p-value was an indicator of better fit. The ratio of chi-square to degrees of freedom was below two, suggesting acceptable fit $CMIN/DF = 1.95$ (Schrieber, Stage, King, Nora, & Barlow, 2006). Albright and Park (2009) suggested reporting RMSEA, the CFI, and the Tucker-Lewis index (TLI) as additional recommended indicators of fit to report.

Practical experience has made us feel that a value of the RMSEA of about .05 or less would indicate a close fit of the model in relation to the degrees of freedom.

This figure is based on subjective judgment. It cannot be regarded as infallible or correct, but it is more reasonable than the requirement of exact fit with the RMSEA = 0.0. We are also of the opinion that a value of about 0.08 or less for the RMSEA would indicate a reasonable error of approximation and would not want to employ a model with a RMSEA greater than 0.1. (Browne & Cudeck, as cited in Arbuckle, 2006b)

The RMSEA for the model was .10 with a lower limit of .096 and an upper limit of .106.

This represented a highly questionable model fit utilizing the Browne and Cudeck recommendations. This also exceeded the .05 significance level indication of good fit for the current model (Albright & Park, 2009; Browne & Cudeck, as cited in Arbuckle, 2006b).

Baseline comparative fit indices did not indicate a good fit: TLI = .299 and CFI = .325. The CFI ranged from 0 to 1 with values approaching .95, indicating a good fit. The TLI could be interpreted in a similar fashion (Albright & Park, 2009).

Further examination of the standardized regression weights was conducted to determine the strength of contribution of survey items to their corresponding levels within the survey. “The standardized estimates under ‘Standardized Regression Weights’ can be interpreted as the correlation between the observed variable and the corresponding common factor” (Albright & Park, 2009, p. 45). All relationships were positive, indicating that all items had a positive contribution toward the factor they were measuring. Rough relationship estimates were utilized to categorize the items for interpretation.

Very strong relationships were indicated by standardized estimates matching or exceeding .70. Strong positive relationships were indicated by estimates between .40 and .69. Moderate positive relationships fell in the .30-.39 range. All estimates falling below

.30 were termed “weak or negligible” and these items were noted for potential further analysis. An overview of item relationships by corresponding factor follows:

- Punishment (Level 1) analysis indicated one moderate positive relationship item, five strong positive relationship items, and two very strong positive relationship items. One item (Q2B1) showed a weak or negligible relationship to the factor (9 items total).
- Institutional (Level 2) analysis indicated one moderate positive relationship item, seven strong positive relationship items, and no very strong positive relationship items. Four items showed a weak or negligible relationship to the institutional factor: Q2B2, Q2B4, Q3B2, and Q4B1 (12 items total).
- Societal (Level 3) analysis indicated no moderate positive relationship item, seven strong positive relationship items, and one very strong positive relationship items. Six items showed weak or negligible relationships to the societal factor: Q1B6, Q2B3, Q2B9, Q3B4, Q4B6 and Q6B1 (14 items total).
- Individual (Level 4) analysis indicated seven moderate positive relationship item, five strong positive relationship items, no very strong positive relationship items. Two items showed weak or negligible relationships to the individual factor: Q1B8 and Q5B7 (14 items total).
- Principle (Level 5) analysis indicated three moderate positive relationship item, seven strong positive relationship items, and no very strong positive relationship items. Three items showed weak or negligible relationships to the principle factor Q1B12, Q2B7, and Q5B11 (13 items total).

Supplementary Exploratory Factor Analyses

Due to issues with the two primary research question analyses, a series of supplementary analyses were conducted to further examine the relationships between certified rehabilitation counselors (CRCs) and the Ethical Decision-Making Scale-Revised. An exploratory factor analysis was conducted on all 72 B-section items. The Kaiser-Meyer-Olken measure of sampling adequacy was .47, slightly below the .50 recommended threshold for a satisfactory factor analysis. Bartlett's test of sphericity was significant Chi-square (2556) = 4353.03, $p = .00$, indicating a strong relationship among the variables. The initial exploratory analysis applied principle axis factoring utilizing an orthogonal varimax rotation.

A 22 factor solution emerged using an eigenvalue threshold of 1.0. Subsequent analysis of the scree plot (see Figure 9) suggested a natural cutoff of four or six factors for further examination. Subsequent examination of factor loadings indicated issues with interpretability, especially surrounding some higher loadings on "faking" items. Due to the Kaiser-Meyer-Olken measure falling below .50 and issues with interpreting the inclusion of faking items, a secondary approach was considered.

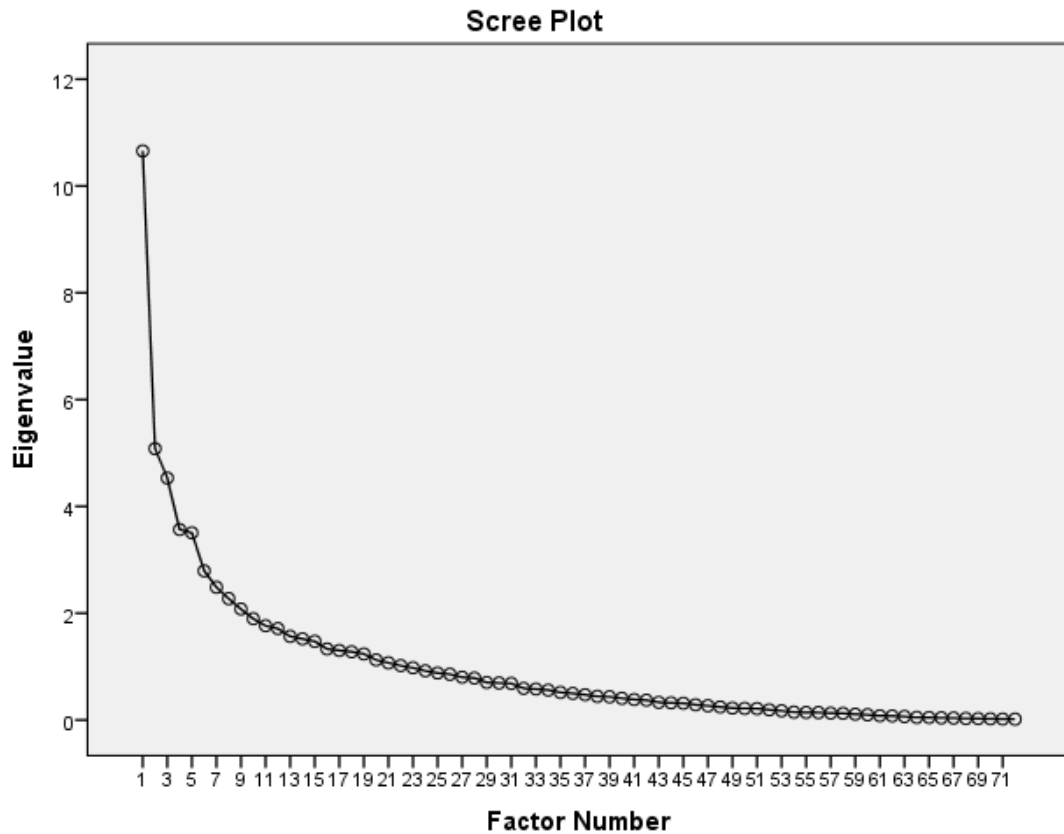


Figure 9. Scree plot of eigenvalues for the exploratory factor analysis including faking items.

A secondary exploratory analysis was run with only 62 items, omitting the 10 “faking” items included in the Ethical Decision-Making Scale-Revised. Coefficients below .3 were suppressed. The Kaiser-Meyer-Olken measure of sampling adequacy was .52, meeting the .50 recommended threshold for a satisfactory factor analysis. Bartlett’s test of sphericity was significant Chi-square (1891) = 3422.19, $p = .00$, indicating a strong relationship among the variables. This exploratory analysis also applied principle axis factoring utilizing an orthogonal varimax rotation. Due to the high number of factors emerging from the initial exploratory analysis, only eigenvalues above two were preserved and eight factors exceeded this threshold.

An examination of the scree plot without the inclusion of faking items (see Figure 10) illustrates an “elbow” on the third factor where the additional contribution of factors toward the explanation of total variance began to substantially diminish. An additional analysis was conducted to produce rotated factor loadings for these three factors and these relationships are reported in Table 7.

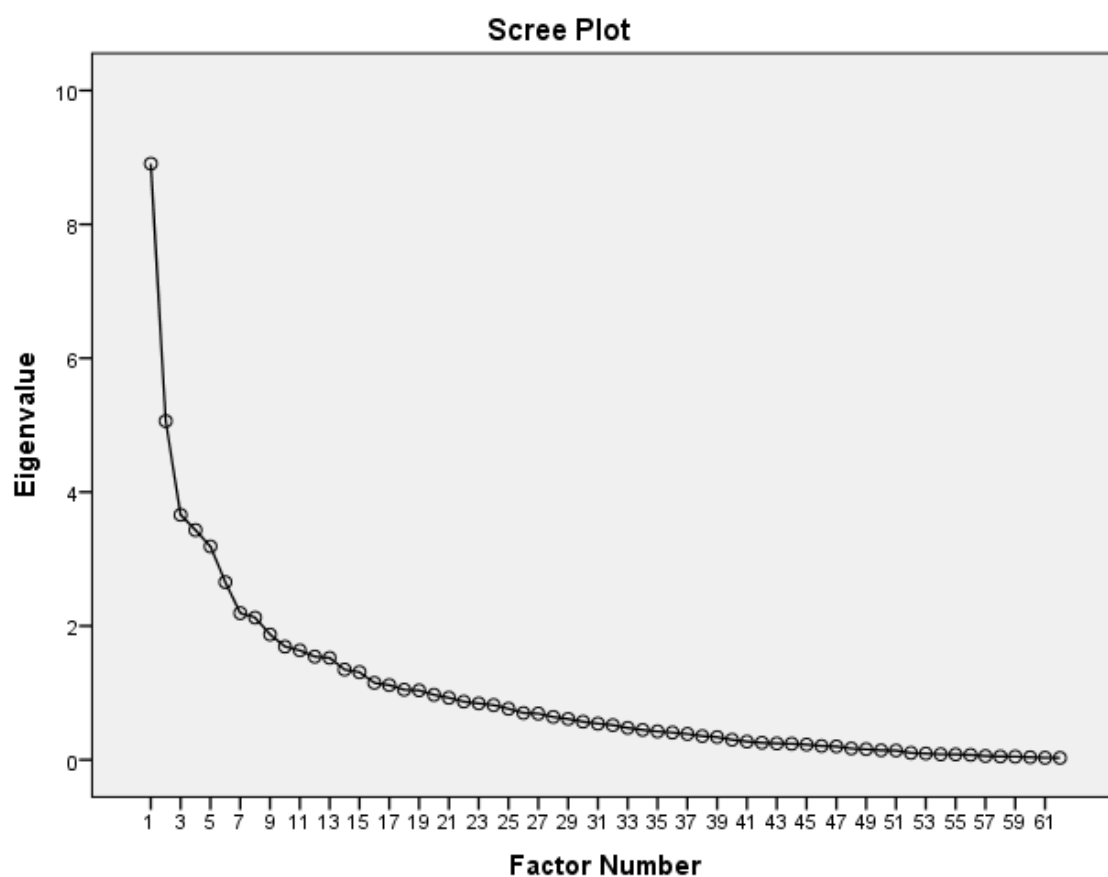


Figure 10. Scree plot of eigenvalues for the exploratory factor analysis without faking items.

Table 7

Rotated Factor Matrix for Forced Three Factor Solution

Scale Items	Factor 1	Factor 2	Factor 3
Q6B7	.568		
Q3B5	.554		
Q1B10	.519		
Q5B4	.503		
Q1B1)	.483		
Q5B6	.478		
Q5B8	.467		
Q3B6	.459		
Q5B9	.453		
Q6B5	.448		
Q5B3	.443		
Q2B5	.442		
Q2B3	.436		
Q5B10	.436		
Q1B11	.483		
Q3B12	.407		
Q5B1		.771	
Q6B3		.674	
Q5B2		.633	
Q4B3		.610	
Q4B2		.593	
Q3B3		.587	
Q3B1		.566	
Q1B1		.437	
Q6B2		.408	
Q2B2		.403	
Q6B10			.832
Q6B12			.718
Q2B8			.571
Q6B4			.557
Q3B8			.521
Q4B9			.510
Q4B10			.498

(Table continues)

Table 7 Continued

Scale Items	Factor 1	Factor 2	Factor 3
Q3B8			.521
Q4B7			.494
Q2B10			.466
Q4B12			.433

Note. Factor structure matrix of principle axis factoring using a Varimax rotation method with Kaiser normalization converging in six iterations. All values below .40 were excluded from inclusion in the table.

Factor 2 consisted of 10 B-Section items with nine punishment orientation scale items and one institutional orientation item. Factor 3 consisted of 11 B-Section items with five principle orientation items and six individual orientation items. Factor 1 consisted of 16 B-section items that included four stage two institutional orientation items, seven stage three societal orientation items, two stage four individual orientation items, and three stage five principle orientation items.

Summary

This chapter reported results from the statistical analyses conducted to answer the research questions from Chapters I and III as well as additional supplementary analyses conducted to add to the understanding of the research questions. Missing data were managed through a combination of case deletion and imputation of data utilizing expectation maximization.

Analyses related to research question one considered if the proposed structural equation model was able to explain the relationships between formalized ethics education, tenure, exposure to ethical codes, and principled ethical orientation. There were no significant relationships between variables in the proposed model.

The confirmatory factor analysis related to research question two sought to confirm that factors present in the Ethical Decision-Making Scale-Revised (Punishment, Institutional, Societal, Individual, Principle) could be used in the study of rehabilitation counselor ethical decision-making. This analysis suffered problems due to small sample size. Supplementary exploration of factors saw three factors emerge with a number of items loading on each of these factors above .40.

CHAPTER V

DISCUSSION

This research built on established efforts to measure the impact of formalized education on principled ethical decision-making. Toward this end, this study sought to determine the impact of factors that have been hypothesized to promote more internalized ethical orientations and subsequently improved intuitive decisions of certified rehabilitation counselors (CRCs). This study had two primary goals: (a) to examine the contribution of factors such as formalized ethics education, tenure, and exposure to the Code of Professional Ethics for Rehabilitation Counselors (CPERC) toward principled ethical decision-making; and (b) to establish if the Ethical Decision-Making Scale-Revised (EDMS-R; Dufrene, 2000) was a reliable and valid scale for use in the field of rehabilitation counseling.

Earlier studies in the field that examined similar factors were based primarily on convenience samples of students in rehabilitation programs. This collection of observations from professionals in the field with a substantial range of practical experience afforded the potential for more meaningful observations on a scale with a theoretical foundation in career-wide development. A primary assumption of this study was the collection of data from field professionals with a range of experience added an essential dimension toward this end, which was not afforded through analysis based on samples of convenience.

Discussion of Main Findings

Despite an extensive list of limitations potentially impacting the generalizability of results to the population of CRCs, demographic statistics roughly conformed to published information regarding the population composition of CRCs as a whole with regard to gender, educational status, primary work setting, and age (CRCC, 2008).

None of the primary independent variables of interest were found to be significantly related to the principle index score dependent variable. An overreaching potential cause impacting results on all variables might be a lack of sensitivity in the EDMS-R to identify changes in lower stages of the Ethical Orientation Scale. The principle index dependent variable is a measure representing the degree to which individuals base ethical decisions on Stage V thinking and is not a sensitive measure to differences in lower stage advancement. This issue is discussed in more detail later in the chapter in the section dedicated to the EDMS-R.

Rejection of the Proposed Structural Equation Model

Q1 How are formalized ethics education, tenure, and ethical code exposure related to ethical orientation?

An examination of numerous fit indices led to a recommendation to reject the proposed Structural Equation Model (SEM). The following section includes potential reasons the model was rejected through a critical evaluation of the factors included in the model.

Tenure

The examination of practicing CRCs with a range of experience was a perceived strength of this research. Contrary to expectations, total months in the rehabilitation counseling field were not significantly related to increases on the principle index score.

This measurement of tenure on a career developmental scale was viewed as an analogue to age measures on Kohlberg's (1984) moral developmental framework. There are a number of potential explanations for this result.

Comparisons were made between tenure and principled decision-making. Carrying the analogy forward, there were strong similarities between the principle orientation stage of Van Hoose and Paradise's (1979) ethical judgment framework and the postconventional, principled level of moral reasoning articulated by Kohlberg (1984). Earlier studies relating to moral development indicated that the majority of adults operated on Kohlberg's conventional level where postconventional reasoning was only achieved by a small, typically highly educated number of people (Kohlberg, 1984; Lapsley, 1996; Snarey, 1985). Kohlberg stopped measuring his highest stage for a period as it was difficult to find significant numbers of individuals actually functioning at that level (Lapsley, 1996). This plateau at conventional moral reasoning stages that occurs with the majority might have carried over to ethical decision-making measures as well. Lambie et al. (2010) also noted the potential of a "ceiling effect" in EDMS-R scores in their sample of master's-level counseling students.

Past research utilizing rehabilitation counseling students did show evidence of some principled level responses, but a series of studies employing cluster analysis also indicated specific group differences among graduate students in counseling with some groups held as exemplars and others either lagging in development or highly varied and ungrounded in their selections. Regardless of status, no clear "purely principled" group emerged as a result of these analyses, which might indicate that the measurement of

principled decision-making was too sensitive for use as an indicator for group comparisons (Dufrene, 2000, Ong, 2005; Tarvydas, 1994).

Likewise, tenure might not have been a significant contributor to the principle index dependent variable because the measurement of the variable itself was flawed. Careers in the rehabilitation field are not restricted to individuals holding graduate degrees or certifications. The opportunity to sample individuals at earlier stages in their careers was not afforded through the constriction of observation to CRCs. The purview of ethical decision-making was not limited to graduate students and certified counselors and it might be possible that significant development in ethical stages took place earlier in the careers of rehabilitation professionals.

Tenure itself might be a necessary but not sufficient component of ethical development. Rest et al. (1999) concluded that development seemed to be affected by “the richness of experience” and “stimulating experiences” (p. 125) rather than by the “passage of time” (Sias et al., 2006, p. 107).

Kitchener (2000) noted the importance of an individual’s moral sense as a foundation for ethical decision-making. An additional argument could result from a more deterministic interpretation of how heavily this factor impacted decision-making: Responses might be a result of beliefs resulting from values and attitudes rather than the utilization ethical knowledge and skills, particularly when relying on the efficiency of intuition (Davis & Jahner, 2010; de las Fuentes et al., 2005).

Tenure might require a continuing educational component as well to operate effectively toward the promotion of a more internalized ethical orientation:

Moral reasoning focuses on normative judgments and centers on what is right or obligatory in a certain dilemma...and tends to increase as long as an individual

remains in formal education...once the individual leaves the formal educational environment, a plateau of moral growth is observed. (Sias et al., 2006, p. 101)

Formalized Education

Also surprising was lack of observed significance between the impact of formalized education measures and principled ethical development. No differences between individuals who held master's and doctoral degrees were expected due to the results of prior studies comparing graduate counseling students at these levels (Dufrene, 2000; Ong, 2005).

Education was an important factor in earlier studies of moral cognitive development and level of education was often used as a variable to test moral development (Dufrene & Glosoff, 2004; Kohlberg, 1984; Rest, 1984). Moral stage development research showed education in general to be a necessary but not sufficient requirement to advance past stage four: Only 13% of adults had reached Kohlberg's (1984) fifth stage and all of them had at completed at least some master's level coursework (Gibbs, 2003). While there are a number of potential causes for the lack of a significant relationship between education and principled orientation in this study, the possibility remains that ethical orientations might remain rooted in early development. Promoting higher order orientations through educational interventions in adulthood can be difficult if not impossible for the majority of adults.

Particular interest was paid to the impact of formalized ethics education as a predictor of differences on principled thinking because both university ethics instruction and continuing education programs provide the opportunity for the observation of changeable conditions where potential modifications are possible to assist in the promotion of higher order ethical decision-making. Early research in moral development

concluded that formalized education was not only a predictor of higher order moral thought but a necessary condition to achieve postconventional stages of morality (Kohlberg, 1984; Lapsley, 1996). Regardless, no significant relationship was found regarding either the impact of university courses in ethics or hours of continuing education in ethics on the principle index score. The variables selected to measure formalized education might not have provided a reliable measure of the construct.

Currently, ethical interventions for rehabilitation counseling students and practitioners are varied (non-standardized) for both continuing education programs and graduate-level, university-based instruction. While this is not an argument for standardization, it is important to note that the level and type of ethics education would vary depending on the content of specific courses and the effectiveness of the instructor/facilitator. There are a number of methods used to assess the effectiveness of a variety of ethics training interventions; considerable disagreement exists regarding both methods of training and how to measure the effectiveness of instruction across a number of disciplines (Allen et al., 2005; de las Fuentes et al., 2005; Lord & Bjerregaard, 2003; Mumford et al., 2008).

The inclusion of educational institutions accredited by the Council on Rehabilitation Education (CORE, 2012) as a variable was not significant toward explaining principled decision-making. University programs can allot only so much capacity toward ethics education; while ethics content is infused throughout coursework, programs are under time constraints to impart essential prerequisite information, such as mandatory ethical code standards, rather than affording the opportunity for ethical stage development: “counseling content (ethical and legal knowledge) and techniques are

‘learned rather quickly’ ...however, the development of the application of ethical knowledge may occur gradually” (Lambie et al., 2010, p .231).

Likewise, the inclusion of number of credit hours in university ethics courses did not provide a significant contribution toward explaining the variance in principle index scores. No additional information on the content of these courses was collected and it is unknown to what degree ethical principles were discussed or promoted in these courses. In hindsight, it is likely there were numerous qualitative differences between credit hours and additional information on courses such as discipline of course origin and whether courses contained primarily philosophical or experiential components. This issue might also have had an impact on the lack of significant relationship between continuing education credit hours completed and the dependent variable. The inclusion of these questions could have provided additional dimensions toward the explanation of these variables. Research suggested program effectiveness differed by educational approach: For example, studies that attempted to influence student values to promote ethical conduct had little success; however, a “sensemaking” approach saw significant short-term improvements in ethical decision-making skills across four areas and six month retention of these skills on two of the four dimensions (Lee & Padgett, 2000; Lord & Bjerregaard, 2003; Mumford et al., 2008).

The Mumford et al. (2008) study raised another potential issue for understanding the relationship between formalized education and ethical decision-making. It is possible that educational interventions might have served a maintenance function rather than a promoter for orientation level. Hull et al. (1994) noted a tendency for regression in some

university groups and suggested that an ethics course was a factor in the maintenance of graduate students' moral reasoning.

Formalized ethics education for CRCs (and those training to become CRCs) is grounded in the standards established by the CPERC (CORE, 2012) and by definition; adherence to the mandatory standards of the code required the acceptance and integration of these externally imposed rules into everyday practice. It is possible that the CPERC itself served as a mediator between the "laws of society and the [standards] of the general public" and decision-making based on "self-chosen principles of conscience and internal ethical formulations" (Van Hoose & Paradise, 1979, p. 117).

Ethical Code Exposure

The frequency of ethical code consultation was not significantly related to principled ethical decision-making. While the CPERC (CORE, 2012) itself does promote aspirational ethical principles in the preamble section, the rationale mentioned in the prior paragraph might help explain one potential issue--that the mandatory standards of the code remain an externally imposed set of constraints on the beliefs of CRCs. Furthermore, CRCs are subject to potential sanctions for violation of the code, further increasing this potential mediating function.

The study did produce an interesting finding regarding code consultation: there has been a substantial shift in frequency of code consultation for rehabilitation professionals over the past 27 years from Pape and Klein's (1986) initial reports that 71.2% of rehabilitation counselors had never consulted a code of ethics to help solve an ethical dilemma. Results from this study found 83% of respondents had consulted the CPERC (CORE, 2012) *in the past year* to assist in the resolution of ethical issues.

The Code of Professional Ethics for Rehabilitation Counselor (CORE, 2012) is a relatively recent addition to the field of rehabilitation counseling. Some respondents to the survey had entered the field prior to the need to operate under a professional code and, during this period, the code itself had been modified numerous times.

Ethical Decision-Making Scale-Revised

This section explores issues related to the second research question and includes a more in-depth discussion of the principle index dependent variables' potential role in the rejection of the proposed structural equation model.

Q2 Is the Ethical Decision-Making Scale Revised (EDMS-R) a reliable and valid scale for use in the field of rehabilitation counseling?

A confirmatory factor analysis (CFA) was conducted utilizing the B-level items on the EDMS-R to determine suitability for use with the sample of 94 CRCs. Internal consistency reliability was calculated for this sample and was deemed acceptable for use in human subjects research. Furthermore, the absolute fit chi-square analysis was not significant, indicating that the model was suitable for use with this sample of CRCs. The likelihood ratios test was also satisfactory for this sample.

It is customary to report a number of fit indices for factor analysis to establish convergent agreement (Albright & Park, 2009; Hutchinson, 2004). The root mean squared error of approximation (RMSEA) indicated a poor model fit as did the Tucker-Lewis (TLI) coefficient and the Bentler-Bonett normed fit index (NFI). These final two baseline comparative fit indices evaluate fit utilizing covariances. Due to sample size issues and the subsequent inadmissible solution discussed in the limitations section of this chapter, this researcher would be uncomfortable arriving at an overall decision to accept or reject the CFA model (it would be premature to accept or reject the second hypothesis

based solely on fit indices until a supplementary CFA with a suitable number of observations could be run).

The primary issue concerning utilization of the EDMS-R for the study of rehabilitation counseling ethics was the main outcome score or P index. “P index scores are interpreted as the degree to which a participant thinks principled considerations are important in making ethical decisions. P index scores are used to compare mean group differences” (Dufrene & Glosoff, 2004, p.6). The principle index score was the result of a formulaic transformation of a stage 5 level score. While four other level scores were also tallied in the process, they were only used to determine individual performance on a given level. Scores from the lower four levels were not utilized in the calculation of P index scores, resulting in a potential plethora of data that was observed but subsequently not used for mean statistical comparisons. The EDMS-R in its current state was not set up to exploit this information.

Purely principled decision-making represents the internal theoretical-based, aspirational extreme on the continuum of career-wide ethical development. While a critical and useful component in decision-making, the limited range afforded by such a measure in the analysis of factors contributed to *higher but not the highest* stages of ethical decision-making development results in a loss in scale utility for this sample of CRCs. A modification of the EDMS-R, or the creation of a similar scale that provided the ability to access these more external dimensions for group comparisons, could prove beneficial toward understanding factors that promote more independent decision-making rather than principled decision-making within the rehabilitation counseling discipline.

Additional information coming from these lower stages could provide a more meaningful range of data for the analysis of the impact on many of the independent variables that failed to achieve statistical significance in this study. An examination of principle index scores alone might not have been sensitive enough to test for impact on changeable factors such as formalized ethics education. Furthermore, the lack of association of independent variables on principle index scores might lend support to authors who argue that unique experiences and existential contemplation are necessary to advance to a purely internalized orientation (Gibbs, 2003).

An exploratory factor analysis (EFA) did provide evidence toward the validity of some scale items use for CRCs. The EDMS-R produced three factors that aligned well with the hierarchical structure of the ethical orientation foundation of the scale. Factor 2 consisted of 10 B-Section items that were clearly related to the more external end of the continuum with nine punishment orientation scale items and one institutional orientation item. Factor 3 consisted of 11 B-Section items relating to internal orientations--five principle orientation items and six individual orientation items. Factor 1 consisted of 16 B-section items that included four stage two institutional orientation items, seven stage three societal orientation items, two stage four individual orientation items, and three stage five principle orientation items. While taking caution not to place too much interpretative weight on the EFA, this supplementary analysis did suggest that a number of items on the EDMS-R were valid for use in detecting differences in CRCs.

Implications and Recommendations for Future Research

Despite these limitations, the EDMS-R remains a useful tool for educators and researchers interested in ethical decision-making in counseling. Past studies on the

ethical orientations of rehabilitation counseling students noted student clusters who adopted a balance between the externally imposed constraints of the system and a purely principled ethical orientation. It appears that the sample of CRCs in this study also fell somewhere between the extremes on the continuum of stages of ethical behavior.

Prior researchers have also suggested that these stages might have utility in the instruction and promotion of aspirational principles and, furthermore, that the EDMS-R could be employed as a tool for counselors and students to explore their own orientations toward these ends (Cottone & Tarvydas, 1998; Ong, 2005).

Tarvydas (1994) used similar measures to identify student clusters that varied on orientation and suggested use of such indices as a method to assess student need for instruction. One group seemed particularly ungrounded (highly variable) in their application of orientation level, indicating the need for further training. Another group emerged as potential leaders/role models for their peers. Further research in this area could determine the impact aspirational training interventions including the using the EDMS-R/stages of ethical orientation for counselor or student self-exploration and potential benefits of the instrument to assess individual student needs in ethics instruction.

Results from supplementary exploratory analyses lent support for the construction of a simplified version of the scale for use in rehabilitation counselor education. The added efficiency achieved through fewer items could improve survey retention. Further research could determine if similar factors emerged using larger samples, providing more support for an analysis tailored for rehabilitation counselors.

Future research could explore the current state of ethics curriculum offered by CORE (2012) accredited graduate programs and various continuing education providers. Determining what types of formalized education exist could lead to a stronger measure of formalized education in rehabilitation. Such an exploration could determine if differences exist between the effectiveness of philosophical, aspirational principle, mandatory, virtue, or other approaches to ethics instruction and how these approaches impact counselor decision-making. A longitudinal component to such research could help determine whether such interventions serve a maintenance function or have a more lasting impact on the promotion of internalized ethical development.

There remains a need for a measure that could attempt to build on EDMS-R concepts toward a more practical, rather than aspirational measure of stage progression for rehabilitation counselors. The P index score, while a critical and useful variable, is not without issue. The limited range afforded by such a measure in the analysis of factors contributed to *higher but not the highest* stages of ethical decision-making development results in a loss in scale utility. A modification of the EDMS-R, or creation of a similar scale that provided the ability to access these more externalized dimensions for group comparisons, could prove beneficial toward understanding factors that promote ethical stage advancement within the rehabilitation counseling discipline. The results of supplementary EFA suggested that a number of EDMS-R scale items were suitable for use in rehabilitation counseling. Further exploration provides the opportunity to see if other researchers come to similar conclusions or other interpretations exist for the field of rehabilitation. A strength of the EDMS-R lay in the generation of relevant dilemmas to the counseling field as a whole. Ong (2005) suggested the inclusion of ethical dilemmas

specific to rehabilitation counseling as one method of improving the validity of the scale. Further EFA attempts with a higher number of observations and the inclusion of rehabilitation counselor specific dilemmas could be generated along with recommendations toward factor retention and item selection for those factors.

Limitations

A number of limitations are worth noting in this study; subsequent discussion of research findings must first be viewed through the lens of these limitations. First, the sample was drawn from a pool of active CRCs, which may not generalize to the rehabilitation counselor population or rehabilitation field as a whole. While a strength of the study was the inclusion of a national randomly sampled group of CRCs, the following discussion argues for caution in generalizing results to the CRC population as well.

Survey response rates might have been impacted by self-selection, the method of dissemination, and the lottery incentive. Attrition/retention rates might have been impacted by the length and difficulty of the survey. In addition, some participants might have experienced accessibility issues inherent in the application utilized to collect the data itself, thus introducing bias. The interpretability and generalizability of some statistical tests were questionable due to a lower than expected response rate. This section elaborates on these limitations.

Internet-based surveys are subject to potential issues with coverage error where “there are members of the target population who have no chance of being selected in the sample” (Tuten, 2010, p. 181). There were two potential sources of coverage error with this study: (a) CRCs who had no internet coverage to access the survey and (b) CRCs

who opted out of allowing their contact information to be distributed by the Commission on Rehabilitation Counseling Certification (CRCC) for participation in research.

Lack of Internet coverage was expected to be relatively low for CRCs. The World Bank (2011) estimated 78.2% of the U.S. population utilizes the Internet; the likelihood that professional counselors had access at least through work was relatively high. However, the CRCC only released contact information for individuals who opted in for research studies, increasing the possibility that this group might not be representative of certified rehabilitation counselors (CRCs) as a whole.

Nonresponse error presented a substantial limitation to both the ability to generalize results of the survey to the CRC population as whole and specific analyses conducted that required more participants to successfully run. Survey attrition was expressed through a diminished retention rate (63.81%), which increased the potential for nonresponse bias. While it is unknown what differences, if any, existed between participants who completed the survey and those who did not, the potential for this bias must be noted. Qualified participants might have removed themselves from the study. For example, one participant inquired whether she qualified for the study as she was working in a peripheral occupation to vocational rehabilitation as a job coach. At least one participant reported experiencing technical glitches with the Internet-based application used for survey dissemination, thus preventing his completion of the instrument. Another issue that potentially increased nonresponse included application inaccessibility. Individuals with sensory disabilities might have opted out of the survey or been unable to complete critical elements of the survey due to incompatible software: While the application used was 508 compliant, “The only question type that is not 508

compliant is our ranking question type” (surveymonkey.com). Since the ranking type question was essential for the EDMS-R and, subsequently, ranking questions had to be included, individuals experiencing technical problems might have become frustrated and dropped out. Issues with the complexity of the survey itself might have also increased attrition rates. While 150 participants completed the demographic section of the survey, once the questions on the scale itself began, retention dropped sharply from 150 to 117.

Qualitative differences might have existed between the population as a whole and those who persisted to survey completion. Of the 117 who completed the first item in the EDMS-R, only 10 failed to complete the last question of the instrument.

Eighty-three of the 1,027 emails addresses provided by CRCC (2012) returned errors as undeliverable. Due to the nature of changed email addresses, there is a high likelihood that these individuals would have provided a more representative sample of CRCs due to the inclusion of unique circumstances surrounding occupational changes. Examples could include new counselors (students who had moved on from university based addresses into the counselor population), individuals who changed primary work settings and subsequently had not updated the CRCC database with their new contact information, and individuals who had retired or left the profession.

While the lottery incentive was in place to increase response and retention, there is also the potential that this incentive impacted data quality. This can occur when “people with little motivation will fill in meaningless data to get to the end of a survey quickly” (Goritz, 2010, p. 220). This indeed seemed to be the case with at least one complete case which, after inspection, had to be removed from the dataset.

The need to employ missing data management techniques also introduced additional problems to the dataset. While all efforts were made to retain cases with complete Section C rankings, the imputation of missing data was required in a handful of cases. One side effect of this imputation resulted in an unintended variation in the sum of total level scores on the EDMS-R, reducing an anticipated total level score of 60 to a mean of 59.40 and a range of 45-64.

Issues with statistical analysis occurred due to a lower than anticipated response and retention rate. More specifically, results from the confirmatory factor analysis (CFA) designed to test the second research question yielded a non-positive definite covariance matrix, resulting in a solution that was not admissible: “Non-positive definite covariance matrices occur when the determinant of the matrix is zero or the inverse of the matrix is not possible. This can be caused by...a sample size less than the number of variables” (Schumacker & Lomax, 2004, p. 45). A CFA of the EDMS-R required 134 distinct parameters to match the 62 B-level scale items, five latent level factors, and 67 associated error terms while the dataset yielded only 94 useable cases. It was possible to run the analysis as IBM SPSS Amos 21.0 “can produce estimates of variances and covariances that yield covariances matrices that are not positive definite” (Arbuckle, 2006a). However, any results reported from the CFA remain highly suspect and caution should be utilized when attempting to interpret these results.

Conclusion

Principled decision-making, by definition, represents an aspirational goal and might not represent the *sine qua non* for the ethical conduct of rehabilitation counselors. While the CPERC (CORE, 2012) included aspiration principles as a component of the

code, principled decision-making represented the theoretical, internally-based end of the continuum of career-wide ethical development.

The structural equation model constructed to test the first research question had to be rejected as results for this sample did not fit the model. Potential problems with construction of the latent variable (formalized education) and sensitivity issues with the principle index score were identified as likely contributors to poor model fit:

Q1 How are formalized ethics education, tenure and ethical code exposure related to ethical orientations?

Likewise, sample size issues led to problems with the CFA designed to test the second research question:

Q2 Is the Ethical Decision-Making Scale Revised (EDMS-R) a reliable and valid scale for use in the field of rehabilitation counseling? ?

A post-hoc exploratory factor analysis did provide evidence that items on the EDMS-R produced three factors that aligned with the hierarchical structure of the ethical orientation foundation of the scale. In addition, internal consistency reliability was adequate for use with the population of CRCs. Despite these positive indicators of reliability and validity, reservations persist around the restriction of the EDMS-R's focus on a principle index rather than one that is more sensitive to positive change on the ethical orientation continuum.

Rather than an exclusive emphasis on principle, a focus on the promotion of a more internalized ethical orientation might fit well with the contemporary issues in rehabilitation counseling, helping to promote resistance to maladaptive institutional pressures. A promotion of more internally grounded ethical orientations is aligned with the spirit of the CPERC (CORE, 2012) and the counselors' primary obligation to the

welfare of the client. While principled judgment alleviates issues with external pressures in theory, the current reality suggests practicing CRCs are impacted by institutional constraints on professional decision-making (Lane et al., 2012).

Plateaus in moral development might also carry over to ethical decision-making. Measures of counselors alone might not encompass the full range of “career development” as experiences in the field might inform development prior to entrance into graduate counseling programs.

The possibility remains that ethical orientations might remain rooted in early moral development and the promotion of higher order orientations through educational interventions in adulthood is an unproductive expenditure of resources in a field reliant on limited federal funding. Additional exploration of the impact of current practices in rehabilitation counselor ethics education is needed to determine what effect, if any, these efforts provide to the field.

The current outcome variable of the EDMS-R was not sensitive enough to assess the effectiveness of ethics training for rehabilitation counselors. Assessing the impact of educational interventions on counselor decision-making remains a high priority interest in the field and the need to measure the efficacy of training efforts remains a need in the field. There was evidence that elements of the EDMS-R could be useful in detecting differences in the ethical development of CRCs.

Further exploration toward an understanding what factors influence the ethical judgments of rehabilitation counselors could help inform how modifiable conditions are approached such as the construction of tailored, formalized education interventions. The current study was unable to illustrate any significant impact on these variables. The lack

of significance between variables of interest indicates additional research is needed to further the understanding of the ethical development of rehabilitation counselors.

This study was not without merit. The examination of practitioners in the field with their ranges of experience added value to the growing literature base concerning rehabilitation counselor ethics. The interpretation of these results, combined with similar efforts looking at students, highly suggested that the counselors (and aspiring counselors) in the rehabilitation field utilized a range of orientations in everyday decision-making. The lack of significance between formalized ethics education, tenure, and ethical code use to a principled ethical orientation were important results in themselves, implying the need for more sensitive measures to examine factors that could impact rehabilitation counselor growth across the continuum of ethical orientations. Likewise, recommendations for additional efforts in the research of the composition of formalized ethics education could lead to measures of effectiveness in ethical interventions at graduate and post graduate levels.

While unable to confirm all theoretical orientation levels were measured by the EDMS-R for this group of CRCs, this research did provide evidence that the EDMS-R could measure differences in CRCs on the external/internal continuum of decision-making. The EDMS-R is a useful scale that might serve as a foundation for the development of an instrument with more sensitive outcome measures and might prove useful as an educational tool in promoting resistance to external pressures on ethical decision-making.

Understanding what promotes counselor resistance to maladaptive external factors in ethical decision-making remains an open and important question for the field of

rehabilitation counseling. Additional efforts are required to work toward the identification of changeable factors that can promote this resistance and measures sensitive enough to detect their impact.

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APPENDIX A

**INSTITUTIONAL REVIEW BOARD APPROVAL
AND CONSENT FORM**

UNIVERSITY of
NORTHERN COLORADO



Institutional Review Board

DATE: September 11, 2012

TO: Matthew Markve
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [368426-2] Influences on the ethical orientation of practicing certified rehabilitation counselors: A path analysis

SUBMISSION TYPE: Revision

ACTION: VERIFICATION OF EXEMPT STATUS

DECISION DATE: September 7, 2012

Thank you for your submission of Revision materials for this project. The University of Northern Colorado (UNCO) IRB verifies that this project is EXEMPT according to federal IRB regulations.

From Dr. Stellino: Thank you for the revisions and additional email script. Best wishes with your research!

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.



CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH
UNIVERSITY OF NORTHERN COLORADO

Project Title: Influences on the Ethical Orientations of Practicing Certified Rehabilitation Counselors

Researcher: Matthew Markve, M.A., CRC, School of Human Sciences

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I am conducting research on practicing Certified Rehabilitation Counselors to see how (a) years of experience in the field, (b) education in ethics and (c) the CRCC Code of Professional Ethics for Rehabilitation Counselors influence how CRCs make ethical decisions. As a participant in this research, you will be asked to complete an online survey. The first part of the survey includes a number of demographic questions while the second part of the survey consists of the Ethical Decision-Making Scale-Revised (EDMS-R). The EDMS-R consists of one sample question and six ethical dilemmas. Multiple choice questions follow each dilemma will ask you to recommend an action, rate the importance of issues surrounding the dilemma and rank which items were most important to you in arriving at a given action.

The purpose of this survey is to explore how counselors think about ethical issues and to see if the EDMS-R is a relevant tool for use when studying CRCs. There are no 'right or wrong' answers. The survey as a whole will take approximately 25-30 minutes.

The survey includes a number of demographic questions such as age, gender and educational background. You will not be asked to provide your name or location and your internet protocol address will not be recorded. Therefore, your responses will be anonymous. The researcher is the only person with access to the account associated with this internet survey. All electronic records will be retained on the password protected computer of the researcher using an encrypted hard drive. This computer resides in a locked office at the main campus of the University of Northern Colorado. Results of the study will be shared with the author of the EDMS-R for the purposes of further establishing the psychometric properties of that scale; again, no shared information could

be linked back to individual participants. Results of the study will be published in group form only (e.g., averages).

There are no known risks associated with taking part in this survey: The only cost will be your own time spent considering ethical questions and responses, and filling out the survey. Participants who complete the survey will have the option to enter a raffle to win a \$100 gift card to Amazon.com, additional benefits of the study include a potential better understanding of the ethical orientation of practicing CRCs and the factors that influence their ethical development. There is no established scale to measure the ethical orientation of practicing rehabilitation counselors: Establishing the EDMS-R as a tool that works for CRCs could prove valuable to future ethics research in the field.

If you have any questions prior to your participation, please do not hesitate to contact the researcher or research advisor.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please complete the survey if you would like to participate in this research. By completing the survey you will give us permission for your participation. You may keep this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.

APPENDIX B

ETHICAL DECISION-MAKING SCALE-REVISED

1. IRB/Consent/Explanation Intro (1 page, 1 question) If Consent then 2, if no consent then end

☐ Yes

☐ No

2. Are you currently practicing in the field of rehabilitation counseling? (Skip logic, if yes, then continue, if no then end survey)

☐ Yes

☐ No

3. Are you male or female?

☐ Male

☐ Female

4. Have you completed any university courses dedicated to the study of ethics? (Skip logic if no skip next question)

☐ Yes

☐ No

5. How many total credit yours of ethics education did you take during your time at university?

Total credit hours of ethics courses:

6. Please estimate how many continuing education clock hours in ethics you have completed since you first became a Certified Rehabilitation Counselor:

Estimate of total CE hours in ethics:

7. How many years and months have you worked in the rehabilitation field since you became a Certified Rehabilitation Counselor?

Years

Months

Ethical Decision-Making Scale-Revised

EDMS-R © 2000

Richard S. Paritzky, Ph.D.

Roxane L. Dufrene, Ph.D.

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