Making a Decision on Ethical Decision-Making Models

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MAKING A DECISION ON ETHICAL DECISION-MAKING MODELS

by

Melanie K. Johnson

A thesis submitted in partial fulfillment of the requirements for the degree of

EDUCATIONAL SPECIALIST in

Psychology

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ABSTRACT

Making a Decision on Ethical Decision-Making Models

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Those within the helping professions, such as psychology, counseling, or social work, are provided with extensive ethical codes by various professional organizations. School psychologists in particular have unique challenges when facing ethical dilemmas due to the complex and often political context of schools. Despite the many guidelines, ethical dilemmas occur where the optimal ethical action is unclear. Ethical decision-making models are recommended across fields to use when resolving dilemmas, though the extensive number of different models and the limited research on their effectiveness are a shortcoming. Prior research on model effectiveness has found some evidence that participants make more ethical decisions with a model present. The purpose of this study was to determine whether participants made more high quality ethical decisions when an ethical decision-making model was present, and if this difference was more apparent in graduate students or practitioners. Participants were 50 school psychologists and school psychology graduate students recruited through NASP. All participants were asked to resolve an ethical dilemma; those in the experimental group had the ethical decision-making model provided. The written ethical resolutions were compared to a prepared list
of all possible solutions that were rated in terms of ethicality. Using a two-way analysis of variance, a significant main effect was found with participants in the experimental group making higher quality ethical decisions ($p < .05$). There was not a significant interaction between status (practitioner v. graduate student) and group, but when comparing effect sizes practitioners showed a greater difference between control and experimental groups ($d = 0.84$) when compared to students ($d = 0.46$). Prior training on using an ethical decision-making model also appeared to have a small effect on higher quality ethical decisions ($d = 0.45$), regardless of experimental group or professional status. These results speak to the efficacy of having an ethical decision-making model available when resolving an ethical dilemma as well as to the importance of high-quality ethical training.
PUBLIC ABSTRACT

Making a Decision on Ethical Decision-Making Models

Melanie K. Johnson

Those in the helping professions, like psychology, counseling, and social work, have numerous ethical guidelines and codes to dictate ethical behavior. These codes, while extensive, do not encompass all situations. When professionals find themselves in an ambiguous situation, it is called an ethical dilemma. Many of the professional organizations that create ethical codes also recommend the use of ethical decision-making models. Ethical decision-making models provide steps, or instructions, on how to make an ethical decision when presented with an ethical dilemma.

Little research has been done on ethical decision-making models, so it cannot be concluded that these models actually help make more ethical decisions. The current study compared ethical decision quality among school psychologists and school psychology graduate students who were given a common ethical dilemma to resolve. The experimental group was provided with a high quality and unfamiliar ethical decision-making model, while the control group was not provided this model. Participants provided their decisions, which were compared to a pre-written list of all possible solutions and a rating for how ethical they were. Evidence was found to support the idea that having an ethical decision-making model available results in higher quality ethical decisions.

School psychology graduate students and school psychology practitioners were compared to see if one was helped more by having an ethical decision-making model available. Although not statistically significant, analyses suggest that school psychology
practitioners may benefit more from having a model available. Furthermore, those who had prior explicit training on using an ethical decision-making model had higher quality ethical decisions. These results speak to the importance of having an ethical decision-making model available when faced with an ethical dilemma, as well as graduate and continuing education providing explicit instruction on ethical decision-making model use.
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CHAPTER I

PROBLEM STATEMENT

Helping professionals, such as social workers, psychologists, and counselors, utilize ethical codes when practicing in order to provide the best care. These professionals are likely to encounter ethical questions that require them to make a decision that will affect the well-being of another person or people. Such decisions are especially pertinent to those within helping professions, who hold authority and who are caring for vulnerable populations like children and those with physical, mental, and cognitive impairments. Ethical codes dictate the guidelines to follow when making decisions based upon agreement from within professional organizations. These codes often include ideals to strive for within a given practice (i.e., aspirational principles) and concrete enforceable standards.

Ethical codes are outlined in many fields by companies and professional organizations. For example, the National Association of School Psychologists (NASP) has general principles, like Principle I.2 “Privacy and Confidentiality”, as well as specific ethical guidelines like Standard I.1.2 “School Psychologists respect the right of persons to self-determine whether to disclose private information” (NASP, 2010, p.5). Within the helping professions like psychology, medicine, counseling, and teaching, various ethical guidelines and principles are available from different organizations. Ethical codes are easily and publicly accessible, incorporated into graduate training and continuing education, and a commitment to follow these guidelines is often required for licensure and/or membership in an organization, like NASP in order to prevent outside policing of a profession. However, such guidelines are not always clearly deciphered, interpreted, or
applied. Ethical codes attempt to cover a broad range of professional behaviors, but they are not inclusive of all situations.

Ethical dilemmas arise in situations where multiple guidelines may apply, but the decision remains unclear. Professionals must work through these ethical dilemmas in order to select a course of action, despite the lack of clarity or specificity within the ethical codes. Ethical decision making (EDM) models provide a framework in which a person is instructed to consider the context, the ethical and/or legal codes, potential decisions and their consequences in order to determine an acceptable and defensible course of action. Outlined in steps, questions, or decision trees, ethical decision-making models provide a framework to use when faced with ethical dilemmas. Within the counselor education programs surveyed in the United States and Canada, ethical decision-making models are one of the most commonly taught theoretical bases for ethical decision-making (Hill, 2004a). Domenech Rodriguez et al. (2014) surveyed ethics professors from APA-accredited programs and found that while 92.6% prepare students to use EDM models, fewer explicitly teach model use.

Ethical decision making utilizing formal models is described as best practice (Handelsman, Knapp, & Gottlieb, 2009) for practitioners and ranked highly in terms of importance for ethical practice (Knapp & Sturm, 2002). Using EDM models will guide practitioners and, with documentation of the decision-making process, will assist helping professionals if the ethicality of their decision is challenged (Cottone, 2012). A comprehensive literature review of the EDM models in the field of psychology has not been published since 2000 (Cottone & Clause, 2000). Since this time there have been several decision-making models created, as well as a conceptual shift toward focusing on
context, multicultural considerations, non-rational factors and how these may affect the individual making the decision (Cottone, 2012).

Ethical decision-making models have a strong theoretical foundation. Beauchamp and Childress (1979) first recommended applying ethics toward a given practice in their seminal work *Principles of Biomedical Ethics*, which described the use of principle ethics in the context of making ethical decisions within the medical profession. Hare (1981) and Beauchamp and Childress (1979), Kitchener (1984) noted that having an ethical code is sometimes insufficient for ethical decision making, because there are times when different ethical values compete. Kitchener (1984) illustrates ethical dilemmas and calls for the need to develop guidelines for making decisions when such dilemmas arise. The theories developed in these works outline the need for EDM models in order to act ethically within helping professions.

EDM models have not been thoroughly studied, compared to the rigorous studies conducted to determine if a treatment or program is evidence-based. EDM models are used in many programs across the US and Canada to train developing professionals to make ethical decisions (Hill, 2004b) with little evidence of utility, or even uniformity in model selection. Some professional organizations have recommended specific models to use (Canadian Psychological Association [CPA], 2010; National Association of Social Workers [NASW], 2016; American School Counselor Association [ASCA], 2016). Unfortunately, because of the limited research there is little guidance when selecting models and those models that are provided lack empirical evidence about their utility.

Few studies have been conducted to determine the effectiveness of EDM models in improving decision-making and the studies that have been conducted are often
confounded by weak methodology. One type of study compared groups receiving extensive training in ethics to control groups who received no training. For example, Garcia, Winston, Borzuchowska, and McGuire-Kuletz (2004) found that rehabilitation counselors who were trained on using an integrative EDM model made better ethical decisions than the control group that received no training. Another type of study showed higher quality ethical decisions after training when compared to before, for example Garcia, Froehlic, McGuire-Kuletz, and Rejiester (2009) provided online training on using an EDM model and there was a significant difference between decision quality from the pre-test and post-test. It is impossible to determine whether the model or the training was the deciding factor in ethical decision quality. With such minimal research on the effectiveness of EDM models, it begs the question as to why they are so unanimously recommended.

Ethical decision making must be considered within the contexts that it occurs which can add layers of complexity by placing additional constraints upon professionals. Those working within the public-school system are required to carefully manage many contextual variables when making ethical decisions. The school context introduces legal concerns, multiple stakeholders, the rights of minors, and limitations on resources to name a few. The complexity involved in such ethical dilemmas outlines the need for empirically supported practices to support optimal decision-making. While theoretically sound, there is little guidance in selecting a model and little empirical evidence supporting the use of EDM models. As new models continue to be written, the focus needs to shift to an empirical evaluation of whether the use of an EDM model results in better decisions made and therefore more ethical treatment of the client. While the
frequency of ethical dilemmas within the schools is not thoroughly studied, the
complexity of the ethical codes for school counselors (ASCA, 2010) and school
psychologists (National Association of School Psychologists [NASP], 2010) provides an
indication of how easily a dilemma may arise. Some research suggests that most school
psychologists and school counselors experience common ethical dilemmas on at least an
annual basis (Bodenhorn, 2006; Dailor & Jacob, 2011). Helping professionals based in
school setting need significant support in ethical decision-making due to the complexity
of the school context.

The purpose of this study was to examine the effectiveness of ethical decision-
making models by incorporating elements that have been lacking in previous studies,
namely by selecting a model that considers decision-making processes and limitations
and provides a rigorous methodology to reduce the effect of external variables. A
thorough review of existing models resulted in a comprehensive EDM model written by
Stromm-Gottfried (2015) selected as the optimal model for the purposes of this study.
School psychologists receive extensive training in ethics, and many graduate programs
are accredited by NASP to ensure quality. Using school psychologists who are members
of NASP, an EDM model was evaluated in terms of the effect on ethical decision quality.
The utility of EDM models may vary based upon the participant’s level of experience and
ethical training, therefore a sample of pre-service and in-service professional were
recruited. Two hypotheses were tested:

Research Question 1: When an ethical decision-making model is provided, will
school psychologists make higher quality ethical decisions compared to decisions
made with no ethical decision-making model provided?
Hypothesis 1: School psychologists will make higher quality ethical decisions when an ethical decision-making model is provided.

Research Question 2: Will there be an interaction between professional status of participants (graduate student v. and practitioner) and EDM condition (provision of an ethical decision-making model v. no EDM)?

Hypothesis 2: Graduate student participants will have a larger difference between decision quality in experimental (EDM provided) and control (no EDM provided) conditions than practitioners.
CHAPTER II
LITERATURE REVIEW

Ethical Decision-Making Models

Ethical codes are provided by professional organizations that work towards developing the highest standards of professional behavior within a given field. These codes are developed by experts within the field in order to guide members of organizations in upholding the standards of professional conduct and the protection of human rights (APA, 2010). Due to the broad and complex situations encountered in helping professions, such as psychology, counseling, psychiatry, and social work, the application of ethical codes is not always clear. Professionals in these fields are required to incorporate ethical codes, law, and policy in addition to countless cultural and social factors. While ethical codes are written in terms of abstract applications, such as underlying principles, and concrete applications, such as behaviors that are not acceptable, much interpretation and professional judgment is required.

Ethical dilemmas or ethically challenging situations occur when practitioners struggle to determine the appropriate response to a situation that requires action. Such dilemmas arise in a wide array of situations, such as (a) when ethical principles or standards compete with each other, (b) ethical codes and law or policy are in conflict, (c) conflict between ethical and moral (personal) standards, (d) a conflict between competing professional roles, (e) conflicts between the interests of multiple parties, (f) improper practices of other professionals, and (g) unclear application of standards due to the complexity of the situation or some other circumstance (Cottone & Tarvydas, 2007; Jacob-Timm, 1999). The frequency of ethical dilemmas has not been established due to
poor response rates on questionnaires, though studies suggest that common dilemmas occur annually for most practitioners in schools (Bodenhorn, 2006; Dailor & Jacob, 2011; Mendes, Nascimento, Abreu-Lima, & Almeida, 2016). Those who have attained higher levels of education are more likely to report experiencing a dilemma, perhaps due to greater awareness of ethical issues (Mendes et al., 2016). Professional organizations have established recommendations for resolving ethical dilemmas including consultation with colleagues and ethics boards, and the use of a systematic ethical decision-making (EDM) model (ACA, 2014; APA, 2010; ASCA, 2004; CPA, 2000; NASP, 2010; NASW, 2008).

**History.** Ethical decision-making as applied to professional practice has several theoretical foundations that are frequently cited. Beauchamp and Childress (1979) developed principles, which are overarching standards, to guide ethical decision-making within the medical field. The philosopher Hare (1981) applied moral philosophies and reasoning towards psychiatric ethics. He described two levels of moral thinking, intuitive and critical evaluation, whose use varies based upon the complexity of the situation. When the situation is clear the intuitive application of absolutist standards is used to make a decision, with most decisions made based upon *prima facie* duties and principles. When two principles conflict or in novel situations where the intuitive level is insufficient, such as an ethical dilemma, critical evaluation is needed. This level requires describing the situation fully, the experiences of those involved, impartial consideration of preferences, individual rights, justice, and full consideration of alternative actions and their consequences. This higher level of conscious deliberation is the basis for EDM models and their structure.

Kitchener (1984) incorporated the principles and rule from Beauchamp and
Childress (1979) with Hare’s (1981) two levels of moral thinking. She applied this towards ethical decision-making in counseling, establishing principle ethics in psychology (Cottone, 2012). Using Hare’s critical evaluation of the intuitive application of principles in all situations, helping professionals may build moral insight and improve decision-making. Ethical decision-making models have since evolved to incorporate a wide array of theories and research.

**Model classifications.** Ethical decision-making models have been categorized based upon their purpose: theoretically/philosophically based, practice based or specialty practice based (Cottone & Clause, 2000). Theoretically/philosophically based models have a foundation grounded in specific theories, such as feminist theory (Hill, Glaser, & Harden, 1995) or transactional analysis (Chang 1994). Practice based models are based upon ethical decision making within a given field, such as counseling (Forester-Miller, & Davis, 1995). Specialty practice based models focus on resolving specific dilemmas or when working with a specific population that has unique needs. Some examples include the use of touch in counseling (Calmes, Piazza, & Laux, 2013), dual relationships (Gottleib, 1993), and working in religious communities (Hill & Mamalakis, 2001). This review will focus on theoretically/philosophically based models and practice based models that can be applied across situations and may be selected by professionals based upon theoretical orientation or personal preferences, due to the lack of empirical findings.

A brief description of EDM model classification systems is provided in order to illustrate the diversity among models. In a review by Garcia and colleagues (2004), EDM models were classified into six theoretical or philosophical foundations. *Rational models,* which are most common, provide pragmatic problem-solving guides that use principle
ethics and provide steps that direct professionals to consider possible courses of action in
decision-making. A moral reasoning model (Rest, 1983) is based upon the necessary
components of moral behavior and influenced by cognitive theories of moral
development (Kohlberg, 1971; Van Hoose & Paradise, 1979). A virtue model (Jordan &
Meara, 1990) utilizes virtue ethics as the basis for decision-making, meaning that ethical
decisions are based upon the professional’s moral beliefs and therefore only influenced
by personal moral growth. Cottone (2001) developed a social constructivist model that is
based upon the premise that realities are socially constructed and decision-making is
based upon social interaction and agreement. The collaborative model created by Davis
(1997) focuses on cooperation and inclusion by making decisions from a group
perspective. Tarvydas (1998) developed an integrative model that combines virtue and
principle ethics, steps from rational models, contextual focus, and personal values into an
iterative and increasingly sensitive process.

Empirical evidence. While benefiting from several theoretical foundations,
ethical decision-making models have little empirical support for their use in making
better ethical decisions. The existing studies are summarized below, beginning with
studies that evaluate whether training on the use of EDM models improves decision
quality. This is followed by a comparison of the acceptability of EDM models as rated by
participants. Finally, a series of related studies are reviewed that demonstrate EDM
model use, training practices, or similar decision-making strategies, are associated with
feelings of preparedness or improved decision-making.

The ethical decision-making model provided in the Canadian Psychological
Association code of ethics from 1986 and based upon the work of Tymchuck (1986) was
used in the first empirical evaluation of the effectiveness of an EDM model. Gawthrop and Uhlemann (1992) recruited undergraduate students in counseling, social work, and childcare ($N = 59$) who were randomly assigned to one of three groups. Participants either attended a 3-hour workshop on ethical decision-making that included a demonstration of applying the model to a vignette, were provided a copy of an ethics code and the EDM model with brief instructions on using the materials, or no instructions or materials were provided. The participants then responded to a vignette and responses were rated based on whether they made a decision and if the decision was made using risk-benefit analysis. Participants in the workshop condition showed significantly better quality decision-making than either the group provided resources or control group, while there was no significant difference between the group provided resources and the control group. This study provides support for the idea that ethical decision-making models improve ethical decision-making if the person using the model has received training on the provided EDM model. Later studies have followed this trend and provided training to professional participants on how to use a specific EDM model, but overlook the fact that none of the participants in this study had previous formal ethics education. It is possible that even a brief ethics workshop is sufficient to improve ethical decision-making, so the use of an EDM model may not have been the active ingredient.

Garcia, Winston, Borzuchowska, and McGuire-Kuletz (2004) studied ethical decision-making effectiveness and perceived EDM model quality in rehabilitation counselors ($N = 69$) using the integrative model developed by Tarvydas (1998). Participants received ethics training in five online sessions with one session focused on learning either a rational EDM model (Forester-Miller & Davis, 1995) or the integrative
model, with the following session on application of that model. The control group received no training. After training, decision-making effectiveness was measured based on response quality to a vignette. Participants then rated the EDM model they were trained on in terms of ease of use and quality of the model. Significant differences were found between those in the control group and those in both experimental groups on decision-making effectiveness, showing evidence that ethical training and EDM model training result in better ethical decisions. The only significant difference between the experimental groups was that those trained in the integrative model were more likely to engage in consultation. Participant ratings of the EDM model showed a significantly higher acceptability of the rational model on 7 of the 13 items, including “Leads to feasible courses of action” and “Easy to learn.” While these results support the effectiveness of EDM models, this cannot be completely divorced from the effectiveness of ethics training.

A study conducted by Garcia, McGuire-Kuletz, Froelich, and Dave (2008) examined the acceptability of two models. Rehabilitation counselors and rehabilitation professionals ($N = 52$), most of whom had completed an ethics course (65%), received online ethics training over seven sessions. In later weeks, the participants were either trained to use the transcultural integrative model (Garcia, Cartwright, Winston, & Borzuchowska, 2003) or a rational model (Forester-Miller & Davis, 1995). The transcultural integrative model (TIM) is based upon the integrative model by Tarvydas (1998) with the incorporation of a multicultural focus, the social constructivist model (Cottone, 2001), and the collaborative model (Davis, 1997). A prior study (Garcia et al., 2004) found that participants preferred this rational model to the integrative model, where
in this study no significant differences between participant preferences were found. This demonstrates a possible increase in acceptability with the modifications made to the integrative model.

A study examining online training comparing the use of the TIM with or without multicultural theory with rehabilitation counselors yielded no significant differences (Garcia, Froehlic, McGuire-Kuletz, & Rejiester, 2009). However, all participants did make significantly more competent decisions after training than prior to training. This study used the same vignette for both time points, which may confound these results. A similar study (Luke, Goodrich, & Gilbride, 2013b) was conducted on the Intercultural Model of Ethical Decision Making (IMED) developed by Luke, Goodrich, and Gilbride (2013a), which is based upon the transcultural integrative model incorporated into a K-12 setting and increasing the focus on the practitioner’s culture. Counseling graduate students (N = 48) received a 70-90 min training intervention on using the IMED and showed a significant improvement on ethical and cultural awareness and use of decision-making steps in response to two different vignettes. This study also found those with previous multicultural counseling coursework had higher pretest scores, but this effect was not apparent in posttest scores. Similar to prior studies, it is unclear if the EDM model is the active ingredient in improved ethical decision-making due to the lack of the control group.

Several studies were found that provided support for the use of EDM models, though they are not directly studied. These speak to the correlates of using EDM models in practice and the effectiveness of different types of ethics instruction and decision-making strategies. A national survey of school psychologists (Dailor & Jacob, 2011)
found a significant association between participants who received multilevel training in ethics and participants who use an EDM model as part of decision-making. Another significant association was found between participants who received multilevel training in ethics and reporting they felt “very well prepared” to handle ethical issues. A meta-analysis conducted by Antes and colleagues (2009) examined potential moderators for instructional effectiveness in ethics training in the sciences, including psychology/counseling, health, and medicine. This study showed courses with training objectives to improve ethical decision-making/problem solving were more effective than those that focused on fostering ethical sensitivity and moral development. Furthermore, courses that included strategies to work through ethical problems were more effective than those that did not. While this meta-analysis did not explicitly examine instruction on ethical decision-making models, these training objectives and decision-making strategies are similar to those that would be found in courses where EDM models are taught. Like the decision-making strategies, Mumford and colleagues (2006) found that participants who made higher quality ethical decisions were more likely to have reported use of cognitive strategies such as those found in ethical decision-making models. Such strategies include recognition of circumstances, seeking help, and anticipating consequences, which are frequently components of EDM models.

Previously described studies on or related to ethical decision-making models provide some evidence to suggest that these models may improve decision quality. Each of these studies incorporated an ethics training course that included a review of ethical practices and group work through an example use of the EDM model used in the study. This practice may be based upon the early study by Gawthrop and Uhlemann (1992) who
recruited untrained participants, though later studies were all conducted with professionals in practice or graduate students. Due to the common methods between these studies, it is impossible to separate the effects of an ethics training course and the use of an EDM model. Further research is needed to determine whether an EDM model can improve ethical decision-making in practice without priming effects.

**Model Comparison**

A comprehensive literature review of ethical decision-making models used in helping professions has not been published since the review by Cottone and Claus (2000). In order to find relevant EDM models and ethical decision-making literature since the publication of the 2000 review several databases were searched, including Education Source, ERIC, Humanities International Complete, Psychology and Behavioral Sciences Collection, and PsycINFO. Using the search terms Ethic, Decision-making, model, and NOT business from the years 2000 to 2016, 891 articles were accessed. These results were narrowed using the Subject Major Headings: Decision Making, Professional ethics, ethics, models, and values to 315 results. By limiting the classification and subjects further to rule out irrelevant topics, such as economics, the final result of 75 articles provided the basis for the review. Several EDM models were found in journal references, textbooks, and professional organization websites. This review may not be exhaustive due to the number of EDM models written in ethics textbooks which did not come up in the original search. VandeCreek and Knapp (2012) noted, “Virtually every author of an ethics textbook presents some kinds of decision-making model (p. 38)” Ethical decision-making models from unrelated fields such as business or nursing were not included in this review due to the different ethical responsibilities. The selected models include those
that are applicable to a variety of ethical dilemmas, excluding specialty practice based models. Some ethical decision-making literature was not included because all recommended actions are prior to encountering a dilemma (Betan, 1997; Jordan & Meara, 1990) or in evaluation once the decision is made (Beauchamp & Walters, 1994; Chang, 1994).

Comparison method. A total of 34 unique models were identified for comparison and can be found in Table 1. Each decision-making model was summarized into a series of steps or elements in order to create a uniform understanding of each model, though model presentation varied from a series of questions (e.g., Strom-Gottfried, 2014) to a sphere of influence (Houser, Wilczenski, & Domoskos-Cheng, 2006). The following analysis only includes model “steps,” of which there were 43 total unique steps, and not the information presented outside of these steps. Models were rated as either containing one of these steps or not. Some steps were included in as many as 28 of the models (e.g., “consider possible courses of action”) and as few as 1 (e.g. “test course of action”, or “determine if solution is feasible”). These 43 steps were organized into eight components or types of steps based upon their similarity. A complete list of steps and which component they were categorized under is listed in Table 2. Some components are based off of just a few steps that are often repeated, like the interpersonal component and the step consultation, while others represent a broad array of behaviors. The components represent common themes across ethical decision-making models, thus providing a guide for selecting a model that more completely encapsulates common elements found in the literature.
<table>
<thead>
<tr>
<th>Reference</th>
<th># of Components</th>
<th>*Profession</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Armistead, Williams, &amp; Jacob (2011)</td>
<td>6</td>
<td>School Psych</td>
<td>Rational model adapted from Keith-Spiegel &amp; Koocher and applied to schools</td>
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<tr>
<td>Canadian Psychological Association (2000)</td>
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<td>Psychologist</td>
<td>Simplified version of Pope &amp; Vasquez model in CPA ethics code</td>
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<tr>
<td>Congress, Black, &amp; Strom-Gottfried (2009)</td>
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<td>Social Worker</td>
<td>Uses ETHIC-A acronym, advocacy as a focus</td>
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<tr>
<td>Corey, Corey, &amp; Callahan (1998)</td>
<td>5</td>
<td>Helping Pro</td>
<td>Steps to stimulate self-reflection and encourage discussion</td>
</tr>
<tr>
<td>Cottone (2001)</td>
<td>5</td>
<td>Helping Pro</td>
<td>Social constructivism model, purely social-relational</td>
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<td>Davis (1997)</td>
<td>3</td>
<td>Counselor</td>
<td>Collaborative Model based on cooperation and inclusion</td>
</tr>
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<td>Ford (2001)</td>
<td>4</td>
<td>Helping Pro</td>
<td>Incorporates Wallace’s ethical contextualist theory to rational model</td>
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<tr>
<td>Forester-Miller &amp; Davis (1995)</td>
<td>5</td>
<td>Counselor</td>
<td>Rational model developed by ACA Ethics Committee</td>
</tr>
<tr>
<td>Frame &amp; Williams (2005)</td>
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<td>Counselor</td>
<td>Multicultural model based on universalist philosophy, empathy, power, and acculturation</td>
</tr>
<tr>
<td>Authors</td>
<td>Year</td>
<td>Role</td>
<td>Model Description</td>
</tr>
<tr>
<td>----------------------------------------</td>
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<td>-----------------------------------------------------------------------------------</td>
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<tr>
<td>Garcia, Cartwright, Winston, &amp;</td>
<td>2003</td>
<td>Helping Pro</td>
<td>Transcultural Integrative Model (TIM), based on Tarvydas model and incorporates multicultural theory</td>
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<td>Borzuchowska</td>
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<td>Gutheil, Bursztajn, Brodsky, &amp;</td>
<td>1991</td>
<td>Psychiatrist</td>
<td>Decision analysis model based on probability theory, using decision trees and estimating probabilities</td>
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<td>Alexander</td>
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<tr>
<td>Haas &amp; Malouf</td>
<td>2005</td>
<td>Helping Pro</td>
<td>Rational model represented in a flow chart</td>
</tr>
<tr>
<td>Hill, Glaser, &amp; Harden</td>
<td>1998</td>
<td>Helping Pro</td>
<td>Feminist model combining rational, emotional, power, biases, and client input</td>
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<tr>
<td>Haas &amp; Malouf</td>
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<td>Hobdy</td>
<td>2016</td>
<td>Social Worker</td>
<td>DECISIONS acronym and published on NASW website</td>
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<tr>
<td>Houser, Wilczenski, &amp; Domokos-Cheng</td>
<td>2006</td>
<td>Counselor</td>
<td>Hermeneutic model represented as an interacting circle of influence</td>
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<td>Jacob, Decker, &amp; Lugg</td>
<td>2016</td>
<td>School Psych</td>
<td>Rational model applied to school psychologists</td>
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<td>Keith-Spiegel &amp; Koocher</td>
<td>1985</td>
<td>Psychologist</td>
<td>Rational model that includes probability of outcomes estimates</td>
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<tr>
<td>Knapp &amp; VandeCreek</td>
<td>2006</td>
<td>Psychologist</td>
<td>Versatile model which can apply to multiple philosophical models</td>
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<tr>
<td>Kocet &amp; Herlihy</td>
<td>2014</td>
<td>Counselor</td>
<td>Counselor Values-Based Conflict Model distinguishing personal and professional values</td>
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<tr>
<td>Luke, Goodrich, &amp; Gilbride</td>
<td>2013</td>
<td>School Couns</td>
<td>Intercultural Model, application of TIM to a K-12 setting</td>
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<td>Pope &amp; Vasquez</td>
<td>2011</td>
<td>Helping Pro</td>
<td>A 17 step model to adapt to each situation</td>
</tr>
<tr>
<td>Rae, Fournier, &amp; Roberts</td>
<td>2001</td>
<td>Helping Pro</td>
<td>A rational model applied to child practice which includes prevention efforts</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Profession</td>
<td>Model Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Raines &amp; Dibble (2011)</td>
<td>2011</td>
<td>Helping Pro</td>
<td>School-based model founded on the golden rule and fiduciary relationships</td>
</tr>
<tr>
<td>Rest (1984)</td>
<td>1984</td>
<td>Counselor</td>
<td>A non-linear model based upon Kohlberg’s moral development</td>
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<tr>
<td>Sileo &amp; Kopala (1993)</td>
<td>1993</td>
<td>Helping Pro</td>
<td>A-B-C-D-E Worksheet includes questions to consider</td>
</tr>
<tr>
<td>Sperry (2007)</td>
<td>2007</td>
<td>Helping Pro</td>
<td>Contextual and relational model with proactive development</td>
</tr>
<tr>
<td>Stadler (1986)</td>
<td>1986</td>
<td>Counselor</td>
<td>Focus on competing values and counselor’s moral beliefs</td>
</tr>
<tr>
<td>Stone (2016)</td>
<td>2016</td>
<td>School Couns</td>
<td>Solution to Ethical Problems in School (STEPS) Model</td>
</tr>
<tr>
<td>Strom-Gottfried (2014)</td>
<td>2014</td>
<td>Social Worker</td>
<td>Six Question (6Q) Model based on 6 W’s Who, What, When, etc.</td>
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<tr>
<td>Tarvydas (1998)</td>
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<td>Helping Pro</td>
<td>Integrative model blending principle and virtue ethics</td>
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<tr>
<td>Tymchuck (1986)</td>
<td>1986</td>
<td>Psychologist</td>
<td>Early utilitarian model as a basis for CPA ethical code</td>
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<td>Welfel (2015)</td>
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<td>Focus on the development of ethical sensitivity and reflection</td>
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</table>

*Note. Some professions are abbreviated: School Psychologist (School Psych), School Counselor (School Couns), Helping Professional or Mental Health Professional (Helping Pro)*
<table>
<thead>
<tr>
<th>Component</th>
<th># of distinct steps</th>
<th>Description</th>
<th>Each step represented</th>
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</thead>
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<tr>
<td>Action</td>
<td>7</td>
<td>Taking actions towards resolving the dilemma or accepting consequences</td>
<td>Select a course of action</td>
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<td></td>
<td></td>
<td></td>
<td>Implement the course of action</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Modify practices or preventative measures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Test the course of action</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Accept responsibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plan implementation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Advocate</td>
</tr>
<tr>
<td>Review</td>
<td>5</td>
<td>Information gathering including review of standards</td>
<td>Review ethical standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Review legal standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Review literature</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gather information or conduct assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Seek out relevant standard or past action</td>
</tr>
<tr>
<td>Type</td>
<td>Level</td>
<td>Description</td>
<td>Actions</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>4</td>
<td>Consideration of personal values and professional competencies</td>
<td>Engage in self-refection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Develop moral sensitivity and experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assess personal competence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Seek additional training or supervision</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>4</td>
<td>Conversations between those involved or consulting outside professionals</td>
<td>Engage in consultation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inform person(s) affected of your decision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Discuss with client</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Negotiate consensus</td>
</tr>
<tr>
<td>Prediction</td>
<td>6</td>
<td>Thinking about potential consequences and probabilities</td>
<td>Consider possible consequences</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Estimate the probability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Identify the ideal outcome</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Determine the ethical traps</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Determine if the standard or past action is unacceptable in this situation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Determine if the solution is feasible</td>
</tr>
<tr>
<td>Deliberation</td>
<td>9</td>
<td>Thinking processes dedicated towards</td>
<td>Problem recognition, identification, and interpretation</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>4</td>
<td>Monitoring the process, decision, and consequences</td>
<td>Monitor the outcome</td>
</tr>
<tr>
<td>-----------------</td>
<td>----</td>
<td>--------------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Perspective</td>
<td>4</td>
<td>Adopt the perspectives of all involved parties based upon their background</td>
<td>Consider the persons affected</td>
</tr>
</tbody>
</table>

defining and judging the aspects of the situation

Problem definition based on standards, values, or principles
Consider possible courses of action
Identify competing values
Weigh the values in decision-making
Consider the relevance of ethical considerations
Identify the “primary” ethical dimension
Identify the client
Assess the relationships

Taking
Using this coded information, each model was rated for the number of distinct components it contained. A comprehensive list of each model and whether it contains a component is presented in Table 3. The original model source was then reviewed by the student researcher to confirm the accuracy of the component ratings. Each model received a score from one to eight, based upon the number of components represented based upon the original coding and review. The average number of components was 5.85 with 2 models containing only 3 components and 6 models containing 8 components.

**Commonalities.** The ethical decision-making models reviewed contain many similarities. Each of the eight components represent underlying similarities across models. Some components are represented more frequently, but even the most infrequent component, intrapersonal, was found in 47% of the models reviewed. The most frequently presented component, deliberation, was found in 82% of the models reviewed. Such commonalities represent the agreement between individual ethical decision-making models.

In addition to the components, other commonalities include the professions for which a model is explicitly recommended, the number of steps in a model, whether the model has a theoretical basis, and whether it incorporates multicultural considerations. While 20 of the models were applied to only one or two professions, 14 models were recommended for all helping professionals or mental health professionals. While not all models included steps that could be represented as a linear set of directions, the number of steps, questions, decision points, and influences were similar between the models. Most of the models reviewed contained between four and ten steps, with one model containing 17 (Pope & Vasquez, 2011). Models were coded as having a clear theoretical
Table 3

Components in EDM Models

<table>
<thead>
<tr>
<th>Reference</th>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
<th>6</th>
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<td>N</td>
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<tr>
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<td>Y</td>
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<td>Sperry (2007)</td>
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<td>Y</td>
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<td>N</td>
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<td>Steinman, Richardson, &amp; McEnroe (1998)</td>
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<td>Y</td>
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<tr>
<td>Stone (2016)</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
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<tr>
<td>Welfel (2015)</td>
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<td>N</td>
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<td>Y</td>
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<td>79</td>
<td>88</td>
<td>65</td>
<td>71</td>
<td></td>
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</tbody>
</table>

Note. Y means that the component is present in the model. N means it was not present.
foundation (23%), integrated theories (15%), or as a rational or practice based model (62%). In addition, 38% of models incorporated multicultural considerations, or as Cottone (2012) described, included the multicultural theme.

**Model Distinctions**

While there are many commonalities between the reviewed ethical decision-making models, several distinctive models provide unique perspectives in ethical decision-making practices. Models that have strong theoretical foundations are presented in order to demonstrate how theory is incorporated into decision-making. A review of the models with theoretical foundation is presented, followed by a review of models that integrate multiple theories. Finally, a review is provided of EDM models that are atypical due to unique individual steps, the length of the model, whether it has been studied, and whether it incorporates devices to aid in memorization of the model.

**Theoretical models.** Ethical decision-making models that have strong theoretical foundations aid practitioners in making ethical decisions using practices based upon their theoretical orientation toward treatment. Of the 34 models reviewed, eight had strong theoretical foundations. The theoretical foundations represented include social constructivism, collaboration, probability theory, feminist theory, hermeneutic theory, value theory, ethical contextual theory, and developmental theory. Though the listed theories are distinct, there is some overlap in perspectives on relationships, context, and the influence of intrapersonal factors. Several examples are provided below.

Cottone (2001) developed a model based upon social constructivism, where all decisions are made interpersonally because realities are socially constructed and always occur within that context. By engaging in the interpersonal processes of consensus
building, negotiating, and arbitrating with all stakeholders, the decision is made externally as a group as opposed to internally as an expert. It is visually represented as an interaction process as opposed to the more common step-wise approach. Hill, Glaser, and Harden (1998) developed an EDM model based upon feminist theory, which considers the effect of power differentials within the relationship, cultural biases, and encourages introspection using emotional and analytical means. By outlining the rational-evaluative processes and the feeling-intuitive processes at each step, the professional is directed to carefully consider many aspects of decision-making, the relationships, the context, and the reflection process. A Decision Analysis model based upon probability theory (Gutheil et al., 1991) provides steps for considering a decision by rationally considering possible courses of action. This model directs the professional to create a decision tree where each potential decision is written, the possible outside influences and the possible results. The professional then estimates the probability of each path and choose the path that is most likely to result in the most valued outcome.

**Theoretically integrated models.** Ethical decision-making models that incorporate multiple theoretical foundations provide professionals an opportunity to include different perspectives when making decisions. The clearest example of this, the Integrative Model, was written by Tarvydas (1998) and builds on the work of previous authors (Beauchamp & Childress, 1979; Hare, 1981; Kitchener, 1984; Rest, 1984; Tarvydas & Cottone, 1991). The Integrative Model incorporates virtue and principle ethics, contextual analysis, value analysis, collaboration with all parties, and reflective practices. Garcia, Forrester, and Jacob (1998) reviewed the Integrative Model and lauded it as the best model for work in the United States due to the social and cultural diversity.
This model has also been studied (Garcia et al., 2004) and used as a foundation for two other models, the Transcultural Integrative Model (Garcia et al., 2003) and the Intercultural Model (Luke et al., 2013a).

**Distinct models.** Several ethical decision-making models stand out due to differences in individual steps, length, format, mnemonic devices, and whether they have received empirical review. Six models contained steps that were entirely unique to that model, for example Stadler (1986) directs professionals to test the course of action prior to implementation. The longest model reviewed was 17 steps (Pope & Vasquez, 2011); the average number of steps was 7.5. Only five of the reviewed models have been studied (Tymchuck, 1986; Forrester-Miller & Davis, 1995; Tarvydas, 1998; Garcia et al., 2003; Luke et al., 2013a). For a full review of these, see Empirical Evidence section earlier in this document.

Many of the ethical decision-making models reviewed are presented in a step-wise format and include clarification that the process is not necessarily linear or rigid. Step sequence should be modified based upon the situation. There are also several models that are presented in different visual formats including a sphere of influence (Houser et al., 2006), an interaction process (Cottone, 2001), a decision analysis tree (Gutheil et al., 1991), a flow chart (Haas & Malouf, 2005), a worksheet (Sileo & Kopala, 1993), and a circle of questions (Strom-Gottfried, 2014). Five models use mnemonic devices in order to aid in memorization. Some models use acronyms, such as the ETHIC-A model which directs professionals to Examine, Think, Hypothesize, Identify, Consult, and Advocate (Congress et al., 2009), while few others use unique memory aids.
**Limitations of Ethical Decision-Making Models**

Decision-making is a complex process that has received extensive theoretical and empirical attention. In reviewing relevant literature, an understanding of decision-making processes can be applied to ethical decision-making and the use of EDM models. The literature reviewed represents a selection from different fields and theoretical backgrounds, therefore the constructs may have differing names, but similar definitions. The literature demonstrates the intricacies of ethical decision-making and the areas in which a simplistic EDM model may not suffice. The assertions as to the limitations of EDM models are presented to outline areas that require further consideration in practice settings. Findings on the factors that affect a professional’s ability to make ethical decisions are reviewed. This information is then compiled into implications for ethical decision-making practices and training needs.

Ethical decision-making models are designed to assist professionals in resolving ethical dilemmas and are recommended by many professional organizations (ACA, 2014; APA, 2010; ASCA, 2004; CPA, 2000; NASP, 2010; NASW, 2008). The evidence that such models are used by practitioners is limited. Dailor and Jacob (2011) found that only 16% of practicing school psychologists reported using an EDM model to resolve an ethical dilemma in the past year. A significant association was found between participants who received multi-level training (dedicated graduate course, instruction within multiple courses, and ethical issues addressed during internship) and those who used an EDM model, as well as between those who received multi-level training and those who feeling prepared to resolve a dilemma. Dailor and Jacob suggest that multi-level training and the use of an EDM model would help school psychologists be prepared
to resolve ethical dilemmas. A qualitative study exploring the ethical decision-making practices of six experienced (7 to 25 years) counselors found 11 decision-making themes, none of which involved use of an EDM model (Levitt, Farry, & Mazzarella, 2014). These counselors described using automatic or intuitive decision-making processes that reflect principle ethics philosophy, with client interests as a prioritized principle. While limited, these results beg the question, why are helping professionals not using the ethical decision-making models that are recommended by a plethora of professional organizations and theorists?

Some authors posit that EDM models are useful in a limited number of circumstances Evans, Levitt, and Henning (2012) recommend that EDM models be taught to students in conjunction with an ethical code and practices that promote self-awareness. They reason that students will develop ethical decision-making skills, autonomy, and professional identity, implying that EDM models provide scaffolding towards professional competence. This assertion is reflected by Seymour, Nairn, and Austin (2004) who, in response to criticisms of the model presented in the New Zealand Code of Ethics, describe the need for early career psychologists to have deliberate and rational steps presented in order to gain the skills to make ethical decisions in a conscious and deliberate manner. Novices can use models as a tool to develop skills, but by not considering other avenues of ethical decision-making this may limit students in their understanding of intuitive decision-making (Williams, 2004). Seymour and colleagues (2004) add that use of EDM models also provide evidence for the ethicality of the behavior if their reasoning is called into question, though Williams (2004) argues that this creates unrealistic expectations for practitioners who may not be able to defend any
decision without an *a priori* logical explanation.

Several authors note limitations to EDM models, typically when presenting a new model or strategy. Many of the reviewed models address a perceived limitation in prior models, such as not sufficiently addressing multicultural issues (Garcia et al., 2003) or not addressing the context of power (Hill et al., 1998). Within a back and forth conversation, Behnke emphasized the importance of professional judgment, noting that no ethical code or EDM model will provide all answers (Barnett, Behnke, Rosenthal, & Koocher, 2007). In addition to limitations within a specific model, Levitt and colleagues (2014) suggest that EDM models may not be used by practicing professionals because they do not reflect the complexity of dilemmas encountered in practice. Alternatively, they believe that counselor values and crystallized reasoning skills direct ethical reasoning processes that occur automatically. Hill (2004b) describes limitations to EDM models such as the time commitment required and the dispassionate, rational approach provided by many models.

Reviewing past research on decision-making led to the development of theoretical frameworks to understand the process as well as the faults within decision-making. Kahneman (2003) applied a two-system theory using updated cognitive research to decision-making, and Reynolds (2006) furthered this work by incorporating the complicating factors found in ethical decision-making. The two-system theory includes a conscious and unconscious system, each with limitations. The unconscious system automatically perceives and interprets information using heuristics or prototypes to make a judgment, which is then evaluated and possibly modified by the conscious system. The conscious system is limited by working memory capacity and time constraints, indicating
that a professional under time constraints or working memory overload will rely upon the unconscious system. This is supported by studies that showed poorer decision quality when time constraints were in place (Lehnert et al., 2015). The unconscious system is limited because it cannot be actively monitored and is therefore susceptible to the influence of biases from the use of heuristics, attention, affect, and priming effects (Pittarello, Leib, Gordon-Hecker, & Shalvi, 2015; Kern & Chugh, 2009; Welsh & Ordóñez, 2014; Antes et al., 2012; Lehnert et al., 2015; Guzak, 2014; Krishnakumar & Rymph, 2012; Gore & Sadler-Smith, 2011; Kado Hoggan, 2011). Biases, such as the fundamental attribution error (Goldinger, Kleider, Azuma, & Beike, 2003), racial biases (Blair & Banaji, 1996), and attractiveness biases (Ritts, Patterson, & Tubbs, 1992) are shown to occur unconsciously and to affect behavior.

The reviewed research provides implications regarding how ethical decision-making works and what factors may affect a professional’s ability to recognize an ethical dilemma, make a decision and act upon that decision. By incorporating this information into an ethical decision-making model and practices, it is possible to select an EDM model with a theoretically sound evidence base. Unconscious processes provide automatic perception and evaluation of ethical situations, but if not actively reflected upon can result in biased decision-making. Placing time pressure on the decision exacerbates this effect. Education about the role that biases play in decision making is shown to reduce their effect (Pronin & Kugler, 2007). Engaging in reflection on past ethical practices can prime ethical reasoning strategies. When engaging in ethical decision-making, actively considering the role that emotions, biases, culture, personal and professional values, ethical mindset, personality, and social influences may help
professionals understand why a certain decision was selected and if that is the best solution for the client(s). Williams (2004) recommends that practitioners learn the value of intuitive reasoning and how to critically review it as well as conscious reasoning. Ethical decision-making is a complex process and by reviewing empirical evidence professionals can better understand this process and utilize the tools at their disposal.

**School-Based Mental Health Services**

Ethical practices within a school context add a layer of complexity to each dilemma. School-based mental health professionals such as school counselors, school psychologists, and school social workers, are required to consider many variables when making ethical decisions. Stone (2013) outlines 13 factors that school counselors incorporate into ethical practice using the acronym COMPLICATIONS.

- Counselor’s values,
- Obligations beyond the student,
- Minors’ developmental and chronological levels,
- Privacy rights of minors, *In loco parentis,*
- Community and institutional standards,
- Academic instruction,
- Trusting relationship,
- Informed consent,
- Opacity of laws and ethical codes,
- Number of student-clients, and
- Standard of care (p. 4, Stone, 2013).

These briefly outline the competing factors that may be involved in ethical decision making in the schools. School service providers take responsibility for and incorporate personal, institutional, legal, practical, and developmental factors when resolving a dilemma. Fisher (2014) further describes that when working in a school there is no single client to consider, one must work to protect the rights of all persons including administrators, parents, teachers, peers, and the community in addition to the student.

An additional strain on the ethical practices of school based mental health
professionals is pressure from administrators to act unethically, likely due to the sometimes-competing demands of professional roles. Boccio, Weisz, and Lefkowitz (2016) found that nearly one-third of school psychologists surveyed had been pressured by administrators to act unethically over the course of their career, this number increased to half of participants when endorsed specific instances of administrative pressure. Such findings are consistent with prior studies that found that 22% of the ethically challenging situations reported involved administrative pressure (Jacob-Timm, 1999). Boccio and colleagues furthermore found a correlation between those who experienced administrative pressure, burnout, a desire to leave their position, and a desire to leave the field. Burnout has been associated with lower quality work, impaired physical and mental health, interpersonal conflict, and substance abuse (Maslach & Goldberg, 1998). These unique pressures and the risks they carry speak to the need for useful and effective strategies to assist in ethical practice.

Summary

Ethical decision-making is a vital aspect to working within the helping professions. Ethical decision-making models are designed to assist when an ethical dilemma makes the correct action unclear, though these models have not been thoroughly studied. With an extensive review and comparison of currently available models, as well as an awareness on the limitations of decision-making, an optimal EDM model could be selected. When considering the populations that use EDM models, school psychologists face unique challenges which may increase the need for assistance in ethical behaviors. These factors speak to the need for a study on the efficacy of an ethical decision-making model used by school psychologists.
Participants

Participants were 50 NASP members, including 22 graduate students and 28 practitioners. Demographics information is provided in Table 4. Based upon previous studies, the population of practicing school psychologists are predominantly women (76.6%) and 90.7% identify as Caucasian (as used in the study) or white (Curtis, Castillo, & Gelley, 2012). Demographic information for graduate students were unavailable. The sample included 41 participants who listed their current gender identity as female (82%), eight as male (16%), and one participant did not complete the demographics section. A majority of participants, 41 (82%) described themselves as “white” though only 36 participants did so with the exclusion of other races and ethnicities. This may reflect an increasingly diverse population since the 2012 study due to the high rates of graduate students participating. Participant ages ranged from 25 to 62 with a mean of 36.98 ($SD = 8.83$). Most participants had completed a master’s degree or higher (94%), while 10% had completed a doctoral degree. The maximum years of experience was 38, with a mean of 7.98 likely due to the higher than random number of student participants. Practitioners’ mean years of experience was 12.82 ($SD = 8.99$). Only 3 primary work settings were endorsed: public school (70%), as a graduate student (24%), and other (4%).

Materials

*Ethical Dilemma Vignette*

The ethical dilemma vignette was selected from the literature and based on previous findings on ethical decision-making. Prior studies of ethical dilemmas
Table 4

Demographics

Participant Demographics (N = 50)

<table>
<thead>
<tr>
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<th>n</th>
<th>(%)</th>
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<tbody>
<tr>
<td>Gender Identity</td>
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<tr>
<td>Female</td>
<td>41</td>
<td>(82%)</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>(16%)</td>
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<td>Race, ethnicity, or origin*</td>
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<tr>
<td>African, African-American/Black</td>
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<tr>
<td>White</td>
<td>41</td>
<td>(82%)</td>
</tr>
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<td>Hispanic, Latino, or Spanish origin</td>
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<td>(10%)</td>
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<tr>
<td>Native American or Alaska Native</td>
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<td>(2%)</td>
</tr>
<tr>
<td>Prefer not to say</td>
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<tr>
<td>Some other race, ethnicity, or origin</td>
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<td>(4%)</td>
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<tr>
<td>Graduate student</td>
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<tr>
<td>Other</td>
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<tr>
<td>Master’s</td>
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<tr>
<td>Specialist</td>
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<tr>
<td>Doctoral</td>
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<tr>
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<tr>
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</tr>
<tr>
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</table>

Note. Percentages will not total to 100 because one participant did not complete the demographics questionnaire
*Participants were able to choose multiple responses
frequently, has low consensus in the response, and is perceived as challenging. Bodenhorn (2006) found that maintaining confidentiality of student personal disclosure was rated as the most common (67%) and the most challenging (46%) dilemma by a sample of 92 school counselors in Virginia with similar results found for school psychologists (Jacob-Timm, 1999; Mendes et al., 2016). Furthermore, administrative pressure to act unethically is a common and distressing concern facing school psychologists (Bodenhorn et al., 2016; Dailor & Jacob, 2011). An ethical dilemma vignette written by Hicks and colleagues (2014) for school counselors was found which incorporates these issues and avoids possible confounding factors such as differences in state law or knowledge of the law, multicultural competencies, and field-specific issues. The vignette was assumed to be an ethical dilemma for school psychologists due to the similarity of context (counseling within the schools) and ethical codes involved.

The vignette concerns a student who has committed an act of vandalism in the school restroom and within a counseling relationship, the student discloses this. The participant has been told to report this to the principal so the student may be punished. The participant is then asked “What should you do [in response to the ethical dilemma]?” without prior mention of confidentiality to avoid priming effects. The dilemma was modified to prompt participants to imagine themselves in the situation by using second person pronouns. Wilkins, McGuire, Abbott and Blau (1990) found that when the person of reference (i.e., self, good friend, colleague, and acquaintance) within the ethical dilemma is the self, participants will select more restrictive solutions. Reference to the student gender was also removed to reduce potential gender biases toward the student’s behaviors.
Ethical Decision-Making Model

Drawing from the review of 34 ethical decision-making models and the factors that affect ethical decision-making, an optimal model was selected for the purposes of this study. Each model was evaluated based upon its inclusion of all eight components as outlined in the literature review, incorporation of multicultural factors, theoretical foundation, empirical evaluation, and ease of use. A model that was unlikely to be familiar to the participants was given preference to reduce the effect of uncommon prior knowledge. Based upon these considerations, the six question (6Q) model for social workers was selected (Strom-Gottfried, 2015). This model incorporates common features from other models, uses a mnemonic device and an intuitive visual representation to demonstrate the non-linear process. A preliminary study on the perceived efficacy and utility of each step was conducted with positive results, though the full study was not published (Strom-Gottfried, 2015). The six questions are presented in a circle and include: “Who will be helpful? What are my choices? When have I faced a similar dilemma? Where do ethical and clinical guidelines lead me? Why am I selecting a particular course of action? How should I enact my decision?” (p. 39). Each question includes multiple considerations, options, or supplemental questions to aid in the use of each step. Some questions were reworded by the student researcher in order to apply to school-based practitioners, simplify the graphic, and provide some information from the text that described how to use the EDM model. Specifically, sub-bullets were removed including examples of who to consult with, how to examine past dilemmas, and examples of professional knowledge and skills. Language specific to social workers, including listing the NASW and CASW for professional standards was removed, and “Use social
work knowledge and skills” was replaced with “Use professional knowledge and skills”.
Some information presented in the model may not have made sense outside of the context
original text, so this was altered. A step to use rule-based/outcome-based philosophy was
removed because it would not make sense to many participants outside the context of the
chapter. Self-understanding was reworded to self-reflection and the “Principal of
publicity” was instead written in question format, “Would I feel comfortable if this
decision were made public?” One addition was made, “Remember to document” was
supplemented with “the process and action” for further clarification.

**Ethical Decision Quality**

Decision quality was analyzed based upon the open-ended response to the
vignette. Similar to the measure developed and validated by Mumford and colleagues
(2006) by providing a hypothetical vignette, determining all possible solutions, and
assigning a numerical value to these solutions, individual ethical decisions and their
quality is measured. This measure differs in the specific application to school mental
health professionals and response style. Mumford and colleagues (2006) required
participants to choose two solutions from a list of potential solutions, which may only
measure the participant’s ability to select a high quality ethical decision instead of their
ability to generate one. To correct for this, participants provided a short answer response
that was qualitatively coded based upon the solution it most exemplified. Three experts in
the field with significant experience in ethical decision-making, including clinical
practice and teaching a graduate course on ethics, were contacted to assist in developing
this measure. They were asked to determine all possible solutions to the vignette and to
order these solutions in terms of quality. Solutions were reviewed by the student
researcher in order to determine similarity and ensure that the maximum number of possible solutions were represented, resulting in a total of 12 solutions.

The solutions were then rated by a sample of 13 school psychologists and school psychology interns using a Likert-type scale of one to five, with one being very unethical and five being very ethical. These ratings were averaged across raters and produced 11 different results with two solutions receiving a score of 1.77. These averages were ordered from lowest to highest and resulted in a final score of decision quality, with items that were rated as most ethical receiving a high score of 11 and items rated as least ethical receiving a score of 1. See Appendix A for the questionnaire and Appendix B for the results. Participant responses were evaluated by the student researcher and placed into at least one of the possible solutions. When multiple solutions were provided, each response was scored separately and averaged for a final score. Incomplete ethical decisions resulted in the participants being excluded from the study. This included those that listed a step in the ethical decision-making process as their response, like consult with a colleague, or those that did not provide a solution stating that more information would be required.

**Questionnaire**

A survey including questions about professional experience, ethics training, and familiarity with the specific EDM model provided or the vignette was utilized. Participants indicated which decision-making strategies they used; options include intuition, strategies from the EDM model provided, and an option to provide other strategies. A question about whether the EDM model provided was read and how thoroughly was included to provide a check for whether the participant followed
instructions. Demographic information was then requested including gender, ethnicity, age, primary work setting, and degree in order to compare with population characteristics.

**Procedure**

Following approval from the Institutional Review Board at Utah State University, an application for participant recruitment was sent to the National Association of School Psychologists. After NASP approval, recruitment began. Participants were invited to participate via postcard (Appendix C) with a link to the survey on Qualtrics as stipulated by NASP rules that do not allow direct e-mail contact with potential participants. A total of 1000 participants were recruited, with the assumption that 13% would complete the study due to the low rate of participant completion in studies related to ethics. Unfortunately, an unprecedentedly low response rate of approximately 6% resulted in 50 participants with useable responses. A total of 9 invitations were returned.

If the participant chose to proceed to the link provided, they were directed to a letter of information that described the study (Appendix D), and an opportunity to consent and continue. If the participant chose to discontinue they proceeded to a page which thanked them for their time. If the participant chose to continue, they were asked whether they are currently a practitioner, graduate student (including internship), or neither (Appendix E). Those who endorsed that they were neither proceeded to the page which thanks them for their time. Practitioner groups and graduate student groups were randomly assigned to the experimental or control group. The control group was provided the selected vignette (Appendix F) and were asked to provide an open-ended response to the question “What should you do?” The experimental group was provided the same
vignette and the EDM model (Appendix G) from Strom-Gottfried (2015) with the prompt “Review the following Ethical Decision-Making Model (Strom-Gottfried, 2015) and utilize the steps. Take your time. What should you do?” Following the question, participants were provided a space for an open-ended response. Participants were prompted to submit their response and continue to the questionnaire. They were directed to provide the appropriate response to the 13-item questionnaire (Appendix H). Upon submitting this, participants were thanked for their participation and contribution to the study. The participant then had the option to enter an email address to enroll in a random drawing for one of ten $20 VISA gift cards.

A total of 65 participants began the survey. One participant did not meet the qualifications, they were neither a school psychologist nor a school psychology graduate student, so their survey was discontinued. Ten participants did not respond to the dependent variable question “What should you do?” and were therefore removed from the results. Of the 54 qualified responses, four did not meet the standards for a complete response. Specifically, participants wrote that they would engage in consultation, determine the impact of their decision, consider pros and cons of different decisions, and consult codes and laws. These responses are categorized as part of the decision-making process and not a decision, so they were excluded from analysis. One participant did complete the dependent variable question but did not complete the demographics questionnaire. Their response was included in the analysis.

Several attention checks were used during the study and are presented in Table 5. The question, “If you were presented with an ethical decision-making model during the study, how thoroughly did you read it?” provided some surprising results. Of the
participants in the control condition, five (18%) indicated that they were presented with a model when they were not. One participant in the experimental condition incorrectly indicated that they did not see an EDM model. Of those in the experimental condition, only one indicated that they did not read the model, while 14 reported reading it briefly and six reported reading it thoroughly.

Two time stamps were noted, the duration of the entire study and the duration of time completing the dependent variable question. Participants took a mean of 614.36 seconds to complete the study, or just over 10 min. The experimental group ($M = 640.45, SD = 484.64$) took slightly more time ($d = 0.08, t(48) = -.289, p = .774$) to complete the study than the control group (mean = 593.86, $SD = 623.01$) though this difference was not statistically significant. The amount of time participants took to respond to the dependent variable question, “What should you do?” was also examined. Participants in the experimental condition ($M = 396.06, SD = 386.70$) took slightly more time ($d = 0.17, t(48) = -.581, p = .564$) to respond than participants in the control condition ($M = 328.61, SD = 422.55$), though, again, this difference was not statistically significant.
Table 5

Attention Checks

<table>
<thead>
<tr>
<th>If you were presented with an ethical decision-making model during the study, how thoroughly did you read it?</th>
<th>Control</th>
<th>Experimental</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td>I was not presented with an ethical decision-making model</td>
<td>20 (40%)</td>
<td>1 (2%)</td>
<td>21 (42%)</td>
</tr>
<tr>
<td>I did not read it</td>
<td>1 (2%)</td>
<td>1 (2%)</td>
<td>2 (4%)</td>
</tr>
<tr>
<td>I read it briefly</td>
<td>1 (2%)</td>
<td>14 (28%)</td>
<td>15 (30%)</td>
</tr>
<tr>
<td>I read it thoroughly</td>
<td>3 (6%)</td>
<td>6 (12%)</td>
<td>9 (18%)</td>
</tr>
</tbody>
</table>

Total Duration of Study (seconds)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range Min - Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>593.86</td>
<td>623.01</td>
<td>153 - 2937</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>640.45</td>
<td>484.64</td>
<td>203 - 2042</td>
</tr>
<tr>
<td>Range Min - Max</td>
<td>561.32</td>
<td>561.32</td>
<td>153 - 2937</td>
</tr>
</tbody>
</table>

Cohen’s d for experiment v. control

0.08

Duration of Dependent Variable Question (seconds)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range Min - Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>328.61</td>
<td>422.55</td>
<td>46.39 - 1874.37</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>396.06</td>
<td>386.70</td>
<td>92.12 - 1588.69</td>
</tr>
<tr>
<td>Range Min - Max</td>
<td>404.50</td>
<td>404.50</td>
<td>46.39 - 1874.37</td>
</tr>
</tbody>
</table>

Cohen’s d for experimental v. control

0.17
CHAPTER IV

RESULTS

Primary Analysis

The primary research questions were examined using a two-way analysis of variance (ANOVA) using group (model, no model provided) and professional status (graduate student, practitioner) as independent variables. Research question one addresses whether school psychologists will make higher quality ethical decisions when an ethical decision making model is provided compared to decisions made with no ethical decision-making model. It was examined by looking at the main effect for group to determine whether an ethical decision-making model impacted the decision quality scores. Research question two sought to understand whether this difference was greater when comparing practitioner and graduate students in each condition. This was answered by examining the interaction effect between group and professional status to determine whether participants without prior work experience benefit more from the provided ethical-decision making model than practitioners.

A two-way analysis of variance yielded a main effect for the participant group, $F(1, 46) = 4.417, p = .041$, indicating that the ethical decision quality score was statistically significantly higher in the experimental group ($M = 10.50, SD = 1.10$) than the control group ($M = 9.03, SD = 2.91$). This resulted in a moderate effect size ($d = 0.67$), supporting the first hypothesis, that ethical decision quality is higher when an ethical decision-making model is provided. Full results are presented in Table 6. The main effect of professional status was not significant, $F(1, 46) = .361, p = .551$, meaning that there was not a significant difference between practitioner and graduate student
participants overall. The interaction effect was not significant \( F(1, 46) = 1.41, p = .709 \), meaning that the EDM model provided did not differentially impact the two groups. This result indicates that graduate students and practitioners have similar patterns of performance across groups (model, no model). Table 7 provides supplemental analysis by dividing participant results into groups to compare means using Cohen’s \( d \), which show a greater effect size for model v. no model within the practitioner group \( (d = 0.84) \) than the student group \( (d = 0.46) \).

Table 6

*Descriptive Statistics of Ethical Decision-Quality Score in Each Grouping*

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Experimental</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practitioner</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( N )</td>
<td>15</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td><strong>Mean (SD)</strong></td>
<td>9.1 (2.67)</td>
<td>10.77 (0.83)</td>
<td>9.88 (2.18)</td>
</tr>
<tr>
<td><strong>Min - Max</strong></td>
<td>2.00 - 11.00</td>
<td>8.00 - 11.00</td>
<td>2.00 - 11.00</td>
</tr>
<tr>
<td><strong>Student</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( N )</td>
<td>13</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td><strong>Mean (SD)</strong></td>
<td>8.95 (3.27)</td>
<td>10.11 (1.36)</td>
<td>9.42 (2.68)</td>
</tr>
<tr>
<td><strong>Min - Max</strong></td>
<td>2.00 - 11.00</td>
<td>8.00 - 11.00</td>
<td>2.00 - 11.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( N )</td>
<td>28</td>
<td>22</td>
<td>50</td>
</tr>
<tr>
<td><strong>Mean (SD)</strong></td>
<td>9.03 (2.91)</td>
<td>10.5 (1.10)</td>
<td>9.03 (2.91)</td>
</tr>
<tr>
<td><strong>Min - Max</strong></td>
<td>2.00 - 11.00</td>
<td>8.00 - 11.00</td>
<td>2.00 - 11.00</td>
</tr>
</tbody>
</table>
### Table 7

**Mean Comparison of Ethical Decision Quality**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Effect size $Cohen's\ d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control v. Experimental</td>
<td>0.67</td>
</tr>
<tr>
<td>Practitioner v. Student</td>
<td>0.19</td>
</tr>
<tr>
<td>Practitioner Control v. Practitioner Experimental</td>
<td>0.84</td>
</tr>
<tr>
<td>Student Control v. Student Experimental</td>
<td>0.46</td>
</tr>
</tbody>
</table>

**Descriptive Follow-up Analysis**

The questionnaire at the end of the study required participants to indicate their experiences with ethical decision-making, ethical training, and their responses to the dependent variable question. These responses, as well as the duration of completing the study and dependent variable question, are displayed in Table 8.

Prior experiences with ethics was examined by looking at participants’ prior training, whether they were trained on using an ethical decision-making model, and years of experience. The majority of participants ($n = 41, 82\%$) had received a minimum of one dedicated course and supplemental workshops or sections within courses. It was unclear whether those who have received minimal training were new graduate students, though it was likely due to the NASP emphasis on ethical training.

Some participants ($n = 27, 54\%$) reported that they had been explicitly trained on using an ethical decision-making model. This question had the most participants not respond ($n = 7, 14\%$). An additional analysis compared the decision quality of participants who had reported explicit training on using an EDM model. Those who had
received training had a mean score of 10.23 ($SD = 1.26$), which was higher than those who had not been trained (mean = 9.13, $SD = 3.22$) with a small effect size found ($d = 0.45$; $t(41) = .12$, $p = .91$).

Participants were asked about whether they were familiar with the EDM model provided in the study, and as expected most were not ($n = 41$, 82%). The ethical dilemma selected was purposefully chosen as one that would be more familiar, though only a few participants had experienced ($n = 5$, 10%), or read about ($n = 8$, 16%) a similar situation.

Participants were asked what strategies they used in making their decision and the results are presented in Table 9. The most used strategies were “I considered my professional ethical code” ($n = 42$, 84%), “I considered the options and their consequences” ($n = 29$, 58%), and “I reflected on my values” ($n = 27$, 54%). The participants who endorsed “I used an ethical decision-making model” included five in the control group and six in the experimental group. When comparing the number of valid strategies used, which included all strategies from “I considered my professional ethical code” to “I used an ethical decision-making model”, there was no meaningful difference between control and experimental groups ($d = .03$). Unsurprisingly, very few participants “Consulted with a colleague” ($n = 4$, 8%) because this would likely increase the length of the study due to lack of immediately available colleagues. Interestingly, no participants in the experimental condition endorsed “I did not need a strategy, I knew my decision immediately”, while four participants in the control condition did. One participant selected to write in “no similar experience” and did not endorse any other strategy.
Table 8

*Participant Responses to Prior Training in Ethics*

<table>
<thead>
<tr>
<th>Select the option that best describes your prior training in ethics.</th>
<th>Control ( n \ (%) )</th>
<th>Experimental ( n \ (%) )</th>
<th>Total ( n \ (%) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>One dedicated workshop or section in a course</td>
<td>1 (2%)</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>One dedicated course</td>
<td>2 (4%)</td>
<td>5 (10%)</td>
<td>7 (14%)</td>
</tr>
<tr>
<td>One dedicated course and additional workshops or course sections</td>
<td>12 (24%)</td>
<td>9 (18%)</td>
<td>21 (42%)</td>
</tr>
<tr>
<td>Multiple dedicated workshops or sections in several courses</td>
<td>7 (14%)</td>
<td>5 (10%)</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Multiple dedicated courses and additional workshops or course sections</td>
<td>5 (10%)</td>
<td>3 (6%)</td>
<td>8 (16%)</td>
</tr>
</tbody>
</table>

Have you ever been explicitly taught how to use an ethical decision-making model?

| Yes | 13 (26%) | 14 (28%) | 27 (54%) |
| No | 8 (16%) | 8 (16%) | 16 (32%) |

Are you familiar with the ethical decision-making model from the book “Straight Talk about Professional Ethics” by Stromm-Gottfried (2015)?

| Yes | 4 (8%) | 4 (8%) | 8 (16%) |
| No | 23 (46%) | 18 (36%) | 41 (82%) |

Have you encountered a vignette similar to the one you saw?
Participants were given the opportunity to provide an additional response after taking some time away from their solution. Only six participants chose to provide an additional response, all of which were reviewed to see if these additions would change their ethical decision quality rating, none did. Participants reiterated their decision and provided further reasoning for why the decision was best, some also added details to how they would enact their decision.
Table 9

*Decision Strategies*

<table>
<thead>
<tr>
<th>What strategy/strategies did you use to think of your selection?</th>
<th>Control n (%)</th>
<th>Experimental n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I considered my professional ethical code</td>
<td>22 (44%)</td>
<td>20 (40%)</td>
<td>42 (84%)</td>
</tr>
<tr>
<td>I considered the policies of my workplace</td>
<td>10 (20%)</td>
<td>3 (6%)</td>
<td>13 (26%)</td>
</tr>
<tr>
<td>I reviewed my professional ethical code</td>
<td>4 (8%)</td>
<td>3 (6%)</td>
<td>7 (14%)</td>
</tr>
<tr>
<td>I reflected on past experience</td>
<td>12 (24%)</td>
<td>9 (18%)</td>
<td>21 (42%)</td>
</tr>
<tr>
<td>I consulted with a colleague</td>
<td>3 (6%)</td>
<td>1 (2%)</td>
<td>4 (8%)</td>
</tr>
<tr>
<td>I considered the options and their consequences</td>
<td>15 (30%)</td>
<td>14 (28%)</td>
<td>29 (58%)</td>
</tr>
<tr>
<td>I considered the perspective of each party</td>
<td>11 (22%)</td>
<td>12 (24%)</td>
<td>23 (46%)</td>
</tr>
<tr>
<td>I reflected on my values</td>
<td>15 (30%)</td>
<td>12 (24%)</td>
<td>27 (54%)</td>
</tr>
<tr>
<td>I used an ethical decision-making model</td>
<td>5 (10%)</td>
<td>6 (12%)</td>
<td>11 (22%)</td>
</tr>
<tr>
<td>I did not need a strategy, I knew my decision immediately</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other: “no similar experience”</td>
<td>1 (2%)</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
</tr>
</tbody>
</table>

Mean number of valid strategies used                           | 3.59          | 3.64              | 3.61        |
Standard Deviation                                              | 2.26          | 1.56              | 1.96        |
Range Min to Max                                                 | 0 - 9         | 1 - 7             | 0 - 9       |
CHAPTER V
DISCUSSION

The availability and use of an ethical decision-making model seemed to significantly influence the quality of decisions when responding to an ethical dilemma. The present study findings are unique in that participants were provided a novel ethical decision-making model without training. Previous studies have found participants show higher quality ethical decisions after being provided training on ethics and the use of an ethical decision-making model (Gawthrop & Uhlemann, 1992; Garcia, Winston, Borzuchowska, & McGuire-Kuletz, 2004) and an improvement when comparing pre-test and post-test scores on ethical decision quality after training (Garcia, Froehlic, McGuire-Kuletz, & Rejiester, 2009; Luke, Goodrich, & Gilbride, 2013b). These studies all included programs training the participants on using their EDM models and sometimes ethics in general, potentially confounding the results. Based upon NASP recommendations that the use of EDM models are taught in graduate level ethics training (Boccio, 2015a), school psychologists should already be aware of how to use an EDM model making such training unnecessary to determine the efficacy. The results of the present study support this assertion. Level of training (graduate student, practitioner) did not impact the quality of decision-making.

Participants in the experimental group were provided with the selected EDM model by Stromm-Gottfried (2015), which contained all elements found in the most comprehensive EDM models as well as specific mention of cultural considerations and the use of a mnemonic. This model was selected in part because it was expected to be unfamiliar to participants, and of the 50 participants only 8 (16%) had reported
previously encountering it. The ethical dilemma vignette was selected because it incorporated two ethical challenges, maintaining confidentiality and administrative pressure, rated as the most commonly experienced by school psychologists (Bodenhorn, 2006; Bodenhorn et al., 2016; Dailor & Jacob, 2011; Jacob-Timm, 1999; Mendes et al., 2016). Despite this, few participants reported having experienced a similar situation \( n = 5 \) (10%) in the questionnaire that followed. Interestingly, a similar number of participants in practitioner (\( n = 3 \)) and student (\( n = 2 \)) groups endorsed experiencing a similar situation. This is despite the large difference in mean years of experience for student (mean = 1.52) and practitioner (mean = 12.82) participants.

**Use of Ethical Decision-Making Model**

The current study found evidence that when participants are provided with an ethical decision-making model, they make higher quality ethical decisions. While most participants across groups provided varying degrees of high-quality responses, including maintaining confidentiality and providing continuing support to the student, several participants without a model provided very low-quality responses, affecting the overall mean quality in the control group. The lowest quality answers, specifically the responses which broke confidentiality, were only found among the participants who did not have the EDM model provided to them. The basis of EDM models is that they are helpful because they remind the practitioner to stop and reason out their decision instead of immediately responding (Hare, 1981).

Participants in the experimental condition did not respond impulsively, with none endorsing the statement “I did not need a strategy, I knew my decision immediately.” However, in the control condition, a few participants (\( n = 4 \), 8%) did endorse this
statement. These participants included two students and two practitioners, so professional experience is unlikely to have influenced this response. Such impulsive response styles may have been used by other participants who did not report it due to social desirability bias. The time participants took to respond to the dependent variable question is a more objective measure of their reasoning strategies. Participants in the experimental group took slightly longer ($d = .17$) to respond to the dependent variable question.

Lehnert and colleagues (2015) found that decision quality is negatively influenced when participants are placed under time constraints. Only participants in the experimental group were prompted to take their time in responding and did in fact take slightly longer to respond than those in the control group. It can be posited that participants in the experimental condition received the additional benefit of being reminded to take their time in deciding, and this prompt resulted in deliberate decision-making and therefore higher quality results. Further study would be needed to control for such prompts.

**Professional Status and Model Use**

The samples of graduate students and practitioners were selected to compare whether the use of an EDM model resulted in higher quality decisions to a larger degree for students. Several authors have suggested that EDM models are only useful for students who lack the ethical sensitivity and crystallized skills to make a deliberate and quality decision (Evans, Levitt, & Henning, 2012; Seymour, Nairn, & Austin, 2004). The non-significant difference between graduate student and practitioner groups does not support this assertion ($p=.709$). When comparing effect sizes between different groups, the differences between the practitioner control and experimental groups had a large
effect size \((d = 0.84)\) while student groups had a small effect size \((d = 0.46)\). This suggests that practitioners may benefit more from the use of an EDM model than graduate students, though further study is needed with a larger sample.

**Decision Practices**

Several different measures were used to check attention and determine whether participants used the EDM model provided. All participants responded to the same questionnaire and were outright asked how thoroughly they read the EDM model, five participants in the control group reported reading it to various degrees and one participant in the experimental group reported not seeing a model. This suggests a lack of attention and perhaps a lack of awareness of what an EDM model is. When asked about what strategies were used when making the decision only 11 participants (22%) reported using an EDM model and of those 11 only 6 were provided a model in the experimental group. This may indicate that participants only reviewed the provided model, but few actually used it. In that case, only the effects of priming from seeing the model and being prompted to “take your time” were needed for a difference to occur between experimental and control groups. It should be noted that this is an improvement upon the Dailor and Jacob (2011) study in which 16% of participants reported using an EDM model to resolve an ethical dilemma in the past year.

Participants reported the strategies used when making their ethical decision. With nine valid strategies listed, it was expected that participants who used the EDM model provided would have endorsed at least five of the strategies provided which were listed in the model and feasible with time constraints. Control and experimental groups used a similar number of strategies \((M = 3.61)\) though there was a slight difference in the range
with the control group endorsing as few as 0 and as many as 9 strategies and the experimental group endorsing as few as 1 and as many as 7. Review, Intrapersonal, and Deliberation components were endorsed as used by the most participants. Review components are represented by the strategies like “I reviewed my professional ethical code”, for a full list of component steps, see Table 2. Interestingly, only 56% of the models reviewed contained an intrapersonal component, suggesting a disconnect between ethical decision-making practices and the many available EDM models. The most time intensive strategies had the fewest participant endorsements, “consulted with a colleague” \((n = 4)\) and “reviewed professional ethical code” \((n = 7)\) suggesting that models which have more time intensive steps may be less feasible and therefore not used. It is unclear whether real world ethical decision-making would have similar time cost analysis.

**Training Implications**

Participants reported their prior training experience and whether they had been trained to use EDM models. Only 54% of the sample reported being explicitly taught to use an EDM model, despite the NASP recommendation that it is taught early and used repeatedly in graduate training (Boccio, 2015a). When comparing the decision quality for participants split by their prior training on using an EDM model, an interesting difference is found. Those who had been trained on using an EDM model, had higher mean scores than those who were not trained suggesting that those who had been explicitly trained on using an EDM model make higher quality ethical decisions, regardless of whether they were in the control or experimental group which was divided relatively evenly between the two. This suggests that early training experiences may be essential to making high quality ethical decisions throughout practice, potentially more than having an EDM
As mentioned above, only half of the participants had been explicitly trained on using an EDM mode while 82% reported receiving multiple levels of ethics training, which Dailor and Jacob (2011) found to be positively correlated. This begs the question as to the quality of ethics training for school psychologists. “NASP approved and APA accredited programs are required to demonstrate that graduate students attain competence in professional standards and ethics” (Boccio, 2015a). Additionally, NASP and many state licensing boards require continuing education in ethics for license renewal, providing ample opportunity to teach EDM models. Future studies may wish to address whether NASP approved programs explicitly teach EDM models and whether there is a disconnect from professional recommendations for training, training on the use of EDM models, and professional practice.

Previous critiques of EDM models, such as Hill’s (2004b) opinion on the time commitment and dispassionate approach, or Leavitt and colleagues (2014) concern that the models simplify a complex situation, may explain why some avoid their use. While this study provides evidence that EDM models being visually available when resolving an ethical dilemma is associated with higher quality ethical decisions, it is unclear if there are extraneous aspects of the model that were not key in improving decision quality. If a professional is adequately trained on ethical decision-making, perhaps only the reminder of a model is sufficient for improved decision-making. Further study is needed to determine exactly what is necessary for a high quality ethical decision.

Limitations

The small sample size of 50 eligible participants is a shortcoming of this study.
Research question two was examined by looking at the interaction effect, which was not meaningful, but comparing different effect sizes suggests that this would not be the case with a larger sample. If this study is replicated, extensive efforts will be needed to ensure a large enough sample size for sufficient power. Furthermore, two survey questions revealed that participants may not have used the ethical decision-making model as desired. When asked what strategies they used in decision-making, only 6 of the 22 participants in the experimental group reported using an EDM model. All participants were asked how thoroughly they read the EDM model presented and six participants erroneously reported whether or not they saw the model. One participant in the experimental group reported not reading it. Replication efforts may prefer to have the EDM model presented on a timed page prior to participants being able to respond to the vignette, though researchers cannot completely control for inattention. As with all self-report, the social desirability bias may have influenced some responses.

The vignette used in the study, while selected because it was reported as a more common experience among school psychologists, may not be viewed as an ethical dilemma by all. Future research may seek to conduct further pilot testing on the vignette, or to study participant responses to multiple vignettes. It is possible that some EDM models are more useful when matched with different types of vignettes. Extensive research would be needed to determine the optimal EDM model for a wide array of ethical dilemmas.

Another limitation to consider is the effect of the phrase “take your time” which was only provided to the experimental group. It would be interesting to see if this phrase on its own affected ethical decision quality due to the effects of time pressure. While it
may be difficult to eliminate the effects of priming, an additional control group with a brief presentation of the EDM model may help determine whether the model primed prior training and reminded the participant to be deliberate, or whether having the model available while decision-making is the key to higher quality ethical decisions.

**Conclusions**

Overall it appears that having an ethical decision-making model available when resolving an ethical dilemma results in higher quality ethical decisions. This difference is not seen more in practitioner or student samples based on significance testing, though effect size results suggest that with a larger sample the practitioner would have a stronger difference. Prior explicit training on using an ethical decision-making model was also related to higher quality ethical decisions, emphasizing the importance for early and repeated ethical training for school psychologists using EDM models. Future studies will want to make efforts to ensure a sufficient sample size and design the study to control for time constraints, attention, and priming effects. Resolving ethical dilemmas in the multifaceted context of schools is essential for ethical practice. Ethics training and use of ethical decision-making models should result in improved client well-being from a more ethical practice.
REFERENCES


[https://doi.org/10.5330/prsc.10.2.e1734087234675u4](https://doi.org/10.5330/prsc.10.2.e1734087234675u4)


[https://doi.org/10.1002/j.2161-007x.2013.00025.x](https://doi.org/10.1002/j.2161-007x.2013.00025.x)


https://doi.org/10.1080/15377903.2014.888531


https://doi.org/10.1002/j.2161-007x.2005.tb01020.x

https://doi.org/10.1002/j.1556-6678.2003.tb00253.x

https://doi.org/10.1891/088970109805030011

https://www.thefreelibrary.com/Testing+a+transcultural+model+of+ethical+decis-ion+making+with...-a0186950679


ethical decision-making in counseling. Sage Publications.


Knapp, S. J., & VandeCreek, L. (2012). *Practical Ethics for Psychologists: A Positive...*
Approach (2nd ed.). American Psychological Association.

http://www.ebrary.com.dist.lib.usu.edu


Supervision, 52(3), 222-234. https://doi.org/10.1002/j.1556-6978.2013.00039.x


https://doi.org/10.1002/j.2161-007x.1993.tb00800.x


Hello,
Thank you for taking the time to assist me with developing my thesis on ethical decision-making. Please read the vignette below and the different responses. Using your ethical training and professional experience, determine which responses best match the codes of ethics. Rate each response on the scale provided with 1 being very unethical and 5 being very ethical.

Vignette:
"You are working in a middle school and recently a student restroom has been vandalized. The principal contacts you and asks if you know who committed the vandalism. She wants to catch this student and make an example out of them. She expects that anyone who has information about this issue to inform her immediately. A teacher referred a student, who was not paying attention in class, for counseling. After a few counseling sessions, the student tells you that they vandalized this restroom with some of their friends. After learning this information, what should you do?"

Please circle your ethical judgement for each potential solution.

a) Report other students involved to the principal, but not your client.
   
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b) Continue counseling without addressing the vandalism, maintain confidentiality.

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c) Threaten to end counseling if the student doesn’t tell the principal.

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d) Continue counseling, maintain confidentiality, and address the vandalism with the student by:
   
   - Reviewing confidentiality
   - Encouraging the student to accept responsibility
   - Attempt to get student consent to inform the principal and/or parents
• Develop an individual intervention, addressing all of the student’s needs

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

e) Tell the student to not discuss this further and inform parents of situation, possible legal ramifications, and the need to contact an attorney.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

f) Report to the principal without student consent.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

g) Report to the principal without student consent and act as a mediator.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

h) Report to the principal and family without student consent, act as a mediator and develop an individual intervention.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

i) Inform the student that you will be reporting and allow them to be involved in that report. Act as a mediator and develop an intervention.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

j) Maintain confidentiality and develop a systemic intervention to reduce vandalism behaviors.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

k) Report to the family without student consent.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical

l) Report to the family without student consent, act as a mediator and develop an individual intervention.

1 2 3 4 5
Very Unethical Somewhat Unethical Neutral Somewhat Ethical Very Ethical
### Appendix B

**Ethical Decision Quality Survey Response**

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Appendix C

Postcard

NASP Research Participant

You are invited to participate in a research study conducted by principal investigator, Gretchen Peacock and Melanie Johnson, a School Psychology Graduate Student at Utah State University. The purpose of this research is to examine ethical decision-making practices of school psychologists to determine what factors may result in higher quality ethical decisions.

Participants can include school psychologists, including graduate students, and practicing school psychologists.

This survey will take approximately 30 minutes of your time and ask for professional and demographic information. Once completed, you may submit your email address for a chance to win one of ten $20 VISA gift cards.

If you have any questions or concerns, please contact the Principal Investigator at 435-797-0721 or gretchen.peacock@usu.edu or the Student Investigator at (801) 897-9987 or melanieljohnson1@usu.edu.

If you would like to participate, please complete the study at this web address:

https://tinyurl.com/ygen6zza

Utah State University
IRB Protocol # 9438
E-mail: gretchen.peacock@usu.edu

Utah State University
Utah State University
Psychology Department
2850 Old Main Hill
Logan, UT 84322
Phone: 435-797-0721
E-mail: gretchen.peacock@usu.edu

Mailing Address Line 1
Mailing Address Line 2
Mailing Address Line 3
Mailing Address Line 4
Mailing Address Line 5
Appendix D

Letter of Information

Making a Decision on Ethical Decision-Making Models

Introduction
You are invited to participate in a research study conducted by Gretchen Peacock, a Professor in the Psychology Department at Utah State University, and Melanie Johnson, a graduate student in Psychology Department at Utah State University. The purpose of this research is to examine ethical decision-making practices of school psychologists to determine what factors may result in higher quality ethical decisions. Your participation is entirely voluntary.

This form includes detailed information on the research to help you decide whether to participate. Please read it carefully and ask any questions you have before you agree to participate.

Procedures
Not all details regarding the purpose of this study are provided here, full details will be described in a debrief after participation. Your participation will involve reading a brief vignette of a common ethical dilemma faced in schools followed by a prompt to respond to the dilemma. This will take approximately 10 minutes. Following the dilemma, you will be provided a demographic survey, which will take approximately 5 minutes. Your total participation in this project is expected to take 15 minutes, but possibly up to 30 minutes. We anticipate that 120 people will participate in this research study.

Risks
This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. The foreseeable risks or discomforts include minor discomfort upon reading the vignette and writing a solution. In order to minimize those risks and discomforts, the researchers have selected a common ethical dilemma. If you have a bad research-related experience, please contact Gretchen Peacock.

Benefits
Although you will not directly benefit from this study, it has been designed to learn more about ethical decision-making practices and the effectiveness of supports for high quality ethical decision-making.

Confidentiality
The researchers will make every effort to ensure that the information you provide as part of this study remains confidential. We will not collect any identifying information about you.

We will collect your information through Qualtrics. Online activities always carry a risk of a data breach, but we will use systems and processes that minimize breach opportunities and we will not collect or store any information that will identify you. Data will be stored on Qualtrics.

It is unlikely, but possible, that others (Utah State University, or state or federal officials) may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

Voluntary Participation & Withdrawal
Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by exiting your web browser. If you choose to withdraw partially through the survey, your response will not be included. Once you complete and submit the survey, withdrawal is not possible because your response will not be related in any way to identifying information.
Compensation For your participation in this research study, you may enter your email for a chance to win one of ten $20 VISA gift cards. If you choose to submit your email address, it will in no way be connected with your responses on the survey.

IRB Review
The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator at 435-797-0721 or gretchen.peacock@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Gretchen Peacock  
Principal Investigator  
(435)797-0721; gretchen.peacock@usu.edu

Melanie Johnson  
Student Investigator  
(801) 897-9987; melaniejohnson1@usu.edu

Informed Consent
By continuing on to the survey you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records.
Appendix E

Screener Question

How would you describe your current professional status?
  o Practicing school psychologist
  o Graduate student (including internship) in school psychology
  o None of the above
Appendix F

Ethical Dilemma Vignette

Vignette: You are working in a middle school and recently a student restroom has been vandalized. The principal contacts you and asks if you know who committed the vandalism. She wants to catch this student and make an example out of them. She expects that anyone who has information about this issue to inform her immediately. A teacher referred a student, who was not paying attention in class, for counseling. After a few counseling sessions, the student told you that they vandalized the restroom with some friends. After learning this information, what should you do?
Appendix G

Ethical Decision-Making Model

“Review the following Ethical Decision-Making Model (Strom-Gottfried, 2015) and utilize the steps. The steps in the model can be used in any order. Take your time. What should you do?”

Who will be helpful?
- Consultation
- Generate options, evaluate options, plan process, practice, and debrief
- Before or after the decision
- Use discretion

What are my options?
- What additional information is needed?
- Generate alternatives, including non-action
- What will each choice mean for those involved?
- Timing of action? Urgency?

Where do ethical and professional guidelines lead me?
- Values (professional, cultural)
- Professional standards
- Practice principles
- Ethical principles
- Law and policies
- Convergence or trade offs?

Why am I selecting this particular course of action?
- Examine motives
- Examine rationale
- Self-reflection
- Would I feel comfortable with this decision being made public?

How should I enact my decision?
- The process matters
- Consider ultimate objectives
- Use your professional knowledge and skills
- Remember to document the process and action

When have I faced a similar dilemma?
- Examine past dilemmas/experiences/readings
- How is this similar to past choices?
- How is it different?
- Have personal “policies” been developed for this issue?
Appendix H

Questionnaire

Please select the appropriate response for the following:

2. Indicate how many years of experience you have working as a school psychologist including internship.
   o ____

3. Select the option that best describes your prior training in ethics:
   o None
   o One dedicated workshop or a section in a course
   o Multiple dedicated workshops or sections in several courses
   o One dedicated course
   o One dedicated course and additional workshops or course sections
   o Multiple dedicated courses
   o Multiple dedicated courses and additional workshops or course sections

4. Have you ever been explicitly taught how to use an ethical decision-making model?
   o Yes
   o No
   o I don’t know

5. Are you familiar with the ethical decision-making model from the book Straight Talk About Professional Ethics by Strom-Gottfried (2015)?
   o Yes
   o No

6. Have you encountered a vignette similar to the one you saw?
   o Yes, I have personally encountered a similar situation.
   o Yes, I have read a similar situation.
   o No, I have not encountered a similar situation.

7. What strategy/strategies did you use to think of your solution?
   o I considered my professional ethical code
   o I considered the policies of my workplace
   o I reviewed my professional ethical code
   o I reflected on past experience
   o I consulted with a colleague
   o I considered the options and their consequences
   o I considered the perspectives of each party
I reflected on my values
I used an ethical decision-making model
I did not need a strategy, I knew my decision immediately
Other

8. If you were presented with an ethical decision-making model during the study, how thoroughly did you read it?
   o I was not presented with an ethical decision-making model
   o I did not read it
   o I read it briefly
   o I read it thoroughly

9. How would you describe your current gender identity?
   o Female
   o Male
   o Prefer not to say
   o Other (please specify)

10. Which category best describes you? Select all that apply.
    o African, African-American/Black
    o Asian
    o White
    o Native Hawaiian or other Pacific Islander
    o Hispanic, Latino, or Spanish origin
    o Native American or Alaska Native
    o Middle Eastern or North African
    o Prefer not to say
    o Some other race, ethnicity, or origin (please specify)

11. What is your age in years?
    o Please Specify _____________
    o Prefer not to say

12. What is your primary work setting?
    o Graduate Student
    o Public School
    o Private/Parochial School
    o College/University
    o Independent Practice
    o Other Government Agency
    o Retired
13. Please list your highest degree attained.
   ○ High school diploma
   ○ Bachelors
   ○ Master’s
   ○ Specialist
   ○ Doctoral

14. After taking some time away from the ethical solution, is there anything you would like to add?
   ○ No
   ○ Yes (please specify) ____________________________

                                 ____________________________
APPENDIX I

Debrief

During this study half of the participants were randomly assigned to a group which had access to an ethical decision-making model and were then encouraged to use this model in their decision-making. The other half of the participants were not provided with this model. This was done in order to examine the differences between responses from those who were provided with an ethical decision-making model compared with those who did not.