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## Formal Ethics Education in Speech-Language Pathology Graduate Students

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FORMAL ETHICS EDUCATION IN SPEECH-LANGUAGE PATHOLOGY

GRADUATE STUDENTS

by

J. Nikki Gaylord

A DISSERTATION

Presented to the Faculty of

The College of Education and Human Services

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### **Abstract**

Ethical service provision is an essential foundational skill for speech-language pathologists (SLPs) and is fundamental for maintaining the integrity of the profession of speech-language pathology. While practicing speech-language pathologists are required to complete formal ethics training during each certification maintenance interval, there are no guidelines set forth as to the amount and type of training for graduate students in speech-language pathology. This quasi-experimental investigation compared the effect of ethics training embedded within a curriculum to formal ethics training on the ethics knowledge and self-reported comfort levels of first-year graduate students in speech-language pathology. Two equal, non-randomized groups of participants completed an ethics test and survey at three different times over the course of the investigation. The test and survey were administered prior to and after formal ethics training and ethics training embedded within the curriculum. Results showed a significant difference in ethics knowledge after completion of the formal ethics training module for both groups. After receiving formal ethics training, there was no difference between groups regarding comfort in identifying and solving ethics problems. These findings add to the literature regarding the need for formal ethics training for graduate students in healthcare professions.

*Key words:* ethics training, graduate students, speech-language pathology, ethical decision-making, self-reported comfort

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## Chapter I: Introduction

Professional conduct within an occupation is guided by a code or set of principles and rules to define and explain what makes up ethical behavior (Fox et al., 1995). Professionals in a healthcare field are often called to a higher standard than others, which is typically why a code of ethics and conduct is implemented. Professionals and professionalism have been described as acknowledging individuals with a particular skill set that has been obtained through extensive training so that they may serve and educate others. Professionals must hold paramount the interests of those they serve and a professional code of ethics and conduct provides guidance in all aspects of service to others (Chabon et al., 2011).

Ethics is a foundational and vital skill for all professionals, but particularly so for healthcare and educational professionals. While ethics knowledge is an imperative skill to ensure that professionals are able to make appropriate and effective ethical decisions that affect the individuals served, this knowledge is also important to the sustainability and integrity of the profession as a whole. Current literature describes a theory to practice gap in ethics education in which healthcare students report a lack of formal ethics training and opportunities to practice ethical decision-making models (Kenny et al., 2019; Pollard et al., 2018). This lack of training then impacts service provision at the professional level, often leading to ethical distress or confusion and potentially unethical behavior. While ethical theory and bioethical terms are commonly used across professions, there is no standardized protocol or proven, regimented method of education for ethics training. While it is expected that students in a professional field develop ethics knowledge and skills, there is no tool to monitor development of ethics skills within a program.

Speech-language pathologists are professionals in a medical or educational community that work to assess, treat, and improve the lives of individuals with communication and swallowing disorders (Chabon et al., 2011). In a healthcare field, when making decisions about individual care and treatment, professionals often reference the evidence-based triangle which includes best current evidence, client values, and clinical expertise (Payne, 2011). Another important perspective in making clinical decisions is the inclusion of ethics, professionalism, and the four bioethical pillars of beneficence, non-maleficence, autonomy, and justice which should be the foundation for clinical skills (Chabon et al., 2011). By employing ethics and professionalism as the basis for the standard of practice, a professional in speech-language pathology is then able to critically appraise the research, client values, and previous experiences and use those to make the most appropriate decisions for the care of the individual.

### **Ethics Education in Speech-Language Pathology Graduate Programs**

Graduate students in speech-language pathology undergo rigorous training and must demonstrate competency prior to graduation in a variety of areas. Graduate education for speech-language pathology students is completed through programs that are accredited by the Council on Academic Accreditation (CAA), an organization associated with the American Speech-Language-Hearing Association (ASHA). The Council for Clinical Certification in Audiology and Speech-Language Pathology (CFCC) define the standards for clinical certification for graduate students, including those skills related to ethics in the profession (ASHA, 2020a). The CFCC indicates that students must have a demonstrated knowledge of ethical conduct standards as well as knowledge of professional issues. The recommended method for educating graduate students in speech-language pathology is embedding ethics and professionalism in courses in a curriculum with no specifications as to how that should look or be assessed. University graduate

programs in speech-language pathology are encouraged to develop ways to embed ethics training in the curriculum rather than provide ethics-specific training.

Practicing speech-language pathology professionals must complete 30 certification maintenance hours of professional development for each 3-year certification interval. Recently, changes were made requiring professionals in the speech-language pathology to have at least one hour of formal ethics training for each certification interval (ASHA, 2020b). Although formal ethics training is now recommended for practicing professionals, there continues to be no suggested method of education for ethics and professionalism with graduate students even though these are required skills and competencies for entering the field (ASHA, 2020a).

### **Development of Ethics Foundations**

Healthcare professionals, regardless of the occupational field, must be able to synthesize and organize information quickly in order to plan assessments and treatments that are best for the individuals and families they serve. Often, practicing professionals focus solely on the individual's capacity to benefit from an evidence-based practice rather than considering the factors of need, equity, fairness, and personal choice (Rogers, 2004). This notion makes a case for ethics education for healthcare professionals, including students in a given field, knowing they will be making treatment decisions and developing a plan of care with consideration of bioethical factors. Fox et al. (1995) indicated that by the incorporation of ethics and professionalism throughout a healthcare student's training, "ethics ceases to be a theoretical discipline and begins to become a professional code of conduct" (p. 766). By facilitating a professional code of conduct early in the education of a healthcare student, the integration of ethical practice into service provision is more likely. Ethics education for healthcare professionals has been found to have a significant impact on the use of ethical resources and

confidence in determining solutions and acting when faced with ethical problems (Grady et al., 2008).

Developing professional and ethical practitioners requires foundational knowledge as well as the ability to generalize and apply skills in a given situation. The ability to act ethically relies on an integration of all ethical facets to facilitate a consistency between what is said, decided and ultimately done (Hughes & Rushton, 2022). This consistency must be expedited through ethics education at all levels of professional practice. In graduate school, students are often creating their professional and moral identities and so exposure to more formal methods of ethics education has the potential for setting the novice professional up for greater success. Cannaerts et al. (2014) found that healthcare professionals felt that specific ethical training courses would be best situated at the beginning and throughout professional training. By developing the student's understanding and knowledge of ethics early in the education process, those skills may become more established in the student as essential rather than an afterthought when making clinical decisions.

### **Statement of the Problem**

Across medical professions, ethics education has been shown to increase ethical awareness in allied healthcare students as well as improve ethical decision-making skills and ethical competence. Although the value of ethics education for students is known and has been demonstrated in various studies, often the structure of ethics education for allied healthcare students is confusing and lacks an organized approach (Cannaerts et al., 2014; Kenny et al., 2019; Pollard et al., 2018). Additionally, studies have shown that allied healthcare students desire more ethics education than they initially received as they felt unprepared and ill-equipped to make challenging ethical decisions in practice (Grady et al., 2008; Huynh & He, 2018).

The current method of ethics education for speech-language pathology graduate students involves embedding ethics terminology and ethical decision-making within courses in a graduate program. There is no standardized, regimented protocol for ethics education for speech-language pathology graduate students based upon the recommendations of governing bodies in the field (ASHA, 2020a). Much research has been completed regarding the different types of educational methods for ethics training, although there is minimal evidence in the literature regarding the most successful and appropriate approaches to educate students regarding ethics terminology and how to solve ethical dilemmas effectively.

### **Purpose of the Study**

The purpose of this study was to assess the efficacy of the current informal method of instruction for ethics in a graduate speech-language pathology program using content embedded in existing curriculum as compared to a more formal ethics training program. While changes to ethics training guidelines were made in 2020 for practicing speech-language pathologists, the American Speech-Language-Hearing Association (ASHA) has provided no such recommendations or changes regarding ethics education for graduate students (ASHA, 2020b). ASHA (2020a) indicates that training of professional skills such as ethics be embedded within the curriculum of a graduate program with no specific guidance regarding instructional method. This study compared the effectiveness of two different instructional approaches for ethics education of students enrolled in a speech-language pathology graduate program.

### **Research Questions**

The following research questions were investigated with this study:

Does formal ethics training within a course as compared to informal ethics discussions embedded in existing curriculum within a course impact ethical awareness, ethical decision-making and comfort levels in first-year speech-language pathology graduate students?

1. Which method of ethics training results in higher self-reported comfort levels as measured on a pre- and post-survey?
2. Which method of ethics training results in higher accuracy in understanding of ethical terminology and ethical decision-making as measured on a pre- and post- ethics assessment?

### **Significance of the Study**

Ethics-specific content and topics for allied healthcare professionals have consistently evolved to accommodate changes in society and healthcare practice although training models have not (Fox et al., 1995). While recommended training for professionals within a given healthcare field is typically specific and delineated regarding content and amount of training required, this is not often the case for ethics with allied healthcare students (ASHA, 2020a; Cannaerts et al., 2014; Kenny et al., 2019; Pollard et al., 2018). This research study aimed to provide information regarding the efficacy of current instructional methods for ethics with speech-language pathology graduate students. Information from this research investigation may potentially impact the delivery methods of ethics education for graduate students in speech-language pathology programs accredited by the CAA, which could then ultimately impact service delivery and client care as a result of developing well rounded ethical and professional practitioners.

## Definitions

1. Professional: Someone with a skill that has been acquired through extended, specialized training (Chabon et al., 2011).
2. Professionalism: The obligation to be loyal to those we service, to hold their interests paramount over our own, and to adhere to the knowledge base of our profession (Chabon et al., 2011).
3. Ethics: A moral philosophy and/or set of moral principles that determine what is right, good, virtuous, true, and just, as defined by a culture or a society (Kummer & Turner, 2011).
4. Utilitarianism: Comprised of the greatest happiness principle, which holds that actions are right insofar as they promote the greatest happiness for the greatest number of people (Payne, 2011).
5. Deontological theory: States that actions that are intrinsically wrong cannot be defended as right simply because they create happiness (Payne, 2011).
6. Casuistry: Often called case-based reasoning; states that must begin with the particularities of the case and proceed to examine the essential circumstances that must be considered together with practical outcomes; permits a process for ethical decision-making that can result in convergence of opinion by people of diverse cultural, religious, and philosophical positions (Payne, 2011).
7. Code of ethics: An official statement of beliefs and guidelines of a professional group that reflects the responsibilities, obligations, and goals of the group's members (Kummer & Turner, 2011).
8. ASHA: American Speech-Language-Hearing Association

9. Legality: Rules that are determined and enforced federally and by the state and they are intended to channel behavior and to resolve certain adverse events (Shavell, 2002).
10. Morality: Rules of conduct that are associated with certain distinctive psychological and social attributes; also intended to channel behavior and resolve certain ethical conflicts (Shavell, 2002).
11. Autonomy: The right to hold views, to make choices, and to take actions based on their personal values and beliefs (Chabon et al., 2011).
12. Beneficence: Acting for the benefit of others (Chabon et al., 2011).
13. Non-maleficence: The obligation to not inflict harm on others (Chabon et al., 2011).
14. Justice: To treat others fairly and equally; to be honest and just in behavior (Kummer & Turner, 2011).
15. CFCC: Council for Clinical Certification in Audiology and Speech-Language Pathology
16. CAA: Council on Academic Accreditation

## **Summary**

Existing literature in healthcare professions other than speech-language pathology have questioned the embedded approach to ethics education for healthcare students. The lack of standardization of infused approaches to ethics education has led to issues regarding how and what content is embedded and often does not account for variability among instructors (Sanders & Hoffman, 2010). Results of previous studies have made the case for facilitating the development of ethical decision-making in graduate healthcare students with explicit discussion and exposure to resources and decision-making models as it cannot be assumed that ethical reasoning will develop once the student is working in the field (Kenny et al., 2010). Individuals with minimal or no ethics education have been identified as being less likely to use ethics



resources effectively therefore leading to feelings of inadequacy when faced with ethical conflicts. Ethical distress and confusion abound when individuals identify a moral or ethical conflict but do not have the tools and reasoning skills to work through the problem (Grady et al., 2008). Resulting ethical distress and ethical confusion have potential high costs for novice healthcare professionals including burnout and compassion fatigue, increased healthcare costs and decreased quality of patient care (Huynh & He, 2018). Unethical behaviors in a healthcare field not only impact the individuals served but the practicing professional and the profession as a whole.

## Chapter II: Literature Review

### History of Ethics in Medical Professions and Speech-Language Pathology

The term *ethics* refers to a set of moral principles or attitudes that describe what is right, good, just, and honest (Kummer & Turner, 2011). The development of ethical theories can be traced to the Enlightenment era of the late 17<sup>th</sup> to 18<sup>th</sup> centuries in Europe although the Hippocratic Oath was believed to be written by Hippocrates in the fifth century BC (Kummer & Turner, 2011; Payne, 2011). The Hippocratic Oath is an oath taken by medical physicians indicating their intent to practice medicine ethically. While the Hippocratic Oath is believed to be much older than more modern ethical theories, the ethical theories of utilitarianism, deontology, and casuistry have driven the ethical debate as well as the process for ethical decision making that is used today (Payne, 2011).

*Utilitarianism* is the belief that actions are right or appropriate as long as they endorse the greatest happiness for the majority of the people. On the other hand, *deontological* theory rejects utilitarianism and argues that actions that are basically wrong cannot be upheld as right just because they create happiness. Even if an action promotes a positive outcome, the action can still be morally and ethically wrong (Payne, 2011). Deontological ethical theory has frequently been the driver behind more modern codes of ethics in various arenas (Payne, 2011). An approach used to bridge utilitarianism and deontological ethical theories is *casuistry*. Casuistry is described as case-based in which reasoning and decision-making skills are applied to each ethical case by examining the circumstances specific to that situation as well as the variety of outcomes that may occur from a decision (Payne, 2011).

A *code of ethics* has been described as a sanctioned declaration of moral beliefs and guidelines of a group of people. The code typically describes the values, responsibilities, and

obligations of the members of the group. The code strives to guide professional behaviors by defining the actions that support and defy the values of the group (Kummer & Turner, 2011). The American Speech-Language-Hearing Association (ASHA) first issued a code of ethics for speech-language pathology and audiology members in 1952, several years after the start of the organization. As a living document, the ASHA code of ethics has been revised and improved upon frequently in response to changes in the profession (ASHA, 2016; Kummer & Turner, 2011).

### **Principles and Terminology in Ethics**

Ethics has been described in a variety of ways in numerous professions. When describing medical ethics, one must consider the combination of morality and law. Morality may be looked at as what *should* be done, whereas, law may be viewed as what *must* be done. Healthcare codes of ethics often combine morality and law in the principles and rules set forth for a given organization or group of people (Payne, 2011).

Four primary, core ethical values are woven through most healthcare professional codes of ethics (Chabon et al., 2011). These standards are used as the basis for the creation of rules and guidelines within a code of ethics document. They also provide guidance for professionals in ethical decision-making (Kummer & Turner, 2011). The first guiding ethical value in healthcare is *autonomy*. Autonomy has been described as an individual's "right to hold views, to make choices, and to take actions based on their personal values and beliefs" (Chabon et al., 2011, p. 300). Autonomy also describes the professional's obligation to provide family-centered care and ensure the family or client are actively involved in their care (Kummer & Turner, 2011).

*Non-maleficence* is the second guiding ethical value and is described as the obligation to avoid inflicting harm on others (Chabon et al., 2011). Non-maleficence is typically portrayed by

describing the actions that should not be engaged in by professionals. Professionals should not only avoid certain actions that may be harmful to others but must employ the third ethical value of *beneficence* to fully promote the well-being of those individuals served (Chabon et al., 2011; Kummer & Turner, 2011). Chabon et al. (2011) described beneficence as “acting for the benefit of others” (p. 301).

The fourth primary ethical value is *justice*. Justice in healthcare ethics refers to the rights of all individuals receiving medical care to have fair and equal access to resources. This value also refers to remaining honest in a profession regarding qualifications, education, skills, and provision of services (Chabon et al., 2011; Kummer & Turner, 2011).

### **ASHA Code of Ethics**

The concept of ethics has been a beacon of morality for speech-language pathologists and audiologists since the inception of the organization with the first separate document specific to the code of ethics created in 1952 (ASHA, n.d.a). Although revisions and refinements have been made to remain current with technology and changes to the profession, the foundational ethical values remain the same and can be found interlaced throughout the fabric of the code of ethics (ASHA, 2016; Chabon et al., 2011; Kummer & Turner, 2011). The ASHA code of ethics is comprised of four primary principles with a varying number of rules pertaining to each principle. The first principle states, “Individuals shall honor their responsibility to hold paramount the welfare of persons they serve professionally or who are participants in research and scholarly activities, and they shall treat animals involved in research in a humane manner” (ASHA, 2016, p. 4). Principle I and the subsequent rules within this principle pertain to the speech-language pathologist or audiologist’s responsibilities to the individuals they serve. Rules outline the

specific obligations and responsibilities of speech-language pathologists and audiologists to the population served (ASHA, 2016).

Principle II of the ASHA code of ethics (2016) provides guidelines and rules that pertain to the speech-language pathologist or audiologist's responsibilities to themselves as professionals. Principle II states, "Individuals shall honor their responsibility to achieve and maintain the highest level of professional competence and performance" (ASHA, 2016, p. 6). Rules within this section elaborate on the primary principle, delineating ways professionals may honor the profession by their own conduct (ASHA, 2016). Principle III of the code of ethics details rules that pertain to the professional's responsibilities to the public. The third principle states, "Individuals shall honor their responsibility to the public when advocating for the unmet communication and swallowing needs of the public and shall provide accurate information involving any aspect of the professions" (ASHA, 2016, p. 7). Rules within principle III specifically target appropriate interaction with the public regarding the professions (ASHA, 2016). Finally, principle IV of the code of ethics speaks to guidelines and rules pertaining to the professional's responsibilities to the profession as a whole. Principle IV states, "Individuals shall uphold the dignity and autonomy of the professions, maintain collaborative and harmonious interprofessional and intraprofessional relationships, and accept the professions' self-imposed standards" (ASHA, 2016, p. 7). Rules within this section specifically speak to the obligations of the professional in collaborating with others, supervision of students and assistants, and reporting members of the organization that do not act ethically (ASHA, 2016). Throughout the ASHA code of ethics, the ethical values of beneficence, justice, autonomy, and non-maleficence are intrinsically and deliberately addressed through the principles and rules.

While the ASHA code of ethics is in place to guide professionals as well as support and protect the populations served, the code also serves as a tool for enforcement of ethical conduct within the profession. To oversee the professional behaviors of its members, ASHA created a Board of Ethics (ASHA, n.d.a). The board has three responsibilities including revising and refining the code as needed, providing ethics education for members, and fielding complaints that may allege violations to the code (ASHA, n.d.a; Davidson & Denton, 2010). If an ethical violation has been identified, individuals may file an ethics complaint with the ASHA Board of Ethics. The board accepts complaints from an assortment of sources, including but not limited to consumers, clients, students, members, and employers. Complaints made to the board are not anonymous and will be shared with the individual in which the complaint is against. Once a complaint is received, the board and its members are invoked and oversee the due process procedure. If an individual is found to have committed an ethical violation, a variety of punishments may be considered by the board including public reprimand, suspension, or revocation of membership (ASHA, n.d.a; Davidson & Denton, 2010).

### **Ethics Education**

Though ethical conduct and decision-making are integral and important professional skills for all allied health fields, formal ethics training has been lacking in many healthcare professions (Huynh & He, 2018; VanderKaay et al., 2018). Unethical behavior in a health field may not only be detrimental to the population served by the profession but may also reflect poorly on the profession as well as potentially end a career for an individual in that profession (ASHA, n.d.a).

Ethics education and training in a given health field are essential for professionals to make ethical decisions that may impact the individuals they serve as well as colleagues and the

public. According to VanderKaay et al. (2018), the ability to successfully formulate solutions to ethical problems has been correlated with improved clinical skills and performance among health students and professionals. Research in allied health fields has indicated gaps in professional knowledge of ethics and the ability to use that knowledge to make sound decisions when faced with ethical dilemmas (DeFoor et al., 2020; Huynh & He, 2018; VanderKaay et al., 2018). In many health fields, professionals provide education and supervision to students training in that particular field. If these professionals are lacking in ethics knowledge, the education of students in ethics may also be affected (VanderKaay et al., 2018).

In a non-experimental, quantitative study completed by DeFoor et al. (2020), researchers aimed to determine student need and perceptions of a more formal ethics curriculum in a large cohort of allied health students enrolled in physician, nursing, and physical therapy programs at a university. A total of 562 students responded to an anonymous survey comprised of questions rated on a Likert-type scale as well as open-ended questions that looked at the respondents' exposure to medical ethics and importance of exposure. Results of this investigation indicated that over 90% of medical students in three different health fields felt that understanding of medical ethics was extremely important. Interestingly, approximately 60% of respondents indicated they had not received formal ethics training and believed that more extensive ethics training was needed (DeFoor et al., 2020).

Huynh and He (2018) completed a study that aimed to determine the knowledge and perceptions of healthcare ethics in registered nursing students pursuing a bachelor's degree in nursing. A total of 30 participants responded to a 20-item questionnaire. Within the questionnaire, demographic information was gleaned and respondents were instructed to answer questions pertaining to hypothetical ethical case situations. Results of this study indicated that

96% of nursing students felt that more ethics training was needed in the field of nursing with 27% of participants indicating dissatisfaction with previous ethics training. Only half of the respondents in this study indicated they had received some type of ethics training in their prior degree program. The information from this study correlated with current literature in which the lack of formal ethics training and a need for more ethics training has been indicated in healthcare fields (DeFoor et al., 2020; VanderKaay et al., 2018).

Lack of formal ethics training at the student level translates to professionals that do not feel confident in their ability to make sound ethical decisions. Grady et al. (2008) completed a study to explore the correlation between ethics education and the ability of nurses and social workers to use that knowledge and ethics resources confidently when faced with ethical dilemmas. Participants in this study were certified and licensed registered nurses and social workers in four different states. A questionnaire was utilized to gain information about the level of education, any ethics training received, confidence in solving ethical problems and specific actions taken for given case scenarios. A total of 1,215 participants responded to the questionnaire and results of this study indicated that approximately 57% of respondents reported having some training or course work in ethics during their educational programs. Social workers reported a higher incidence of ethics training than nurses. Approximately 14% of respondents reported no ethics training at all. Those individuals that reported no ethics training indicated reduced confidence and use of appropriate resources when facing ethical dilemmas. This study correlated with other literature that suggests that ethics training at the student level increases the confidence and use of resources when faced with ethical problems as professionals (DeFoor et al., 2020; Huynh & He, 2018; VanderKaay et al., 2018).



## **Ethics Education in Speech-Language Pathology**

Similar to other healthcare professions, speech-language pathology has minimal research published as to the effects of ethics training with students as well as how they use that training in the future to make ethical decisions (Bourne et al., 2013). According to Krautscheid (2017), the ability of an individual to appropriately respond to ethical situations depends on a history of opportunities to practice identifying and rehearsing responses to ethical dilemmas. By integrating ethical awareness and training in an educational curriculum, students are allowed to examine their own values and grow along an ethical continuum. Additionally, practice with ethical situations allows students to gain confidence in their abilities to solve ethical problems (Bourne et al., 2013; Krautscheid, 2017). Kenny et al. (2007) completed a research investigation to determine the ethical reasoning approaches used by new speech-language pathology graduates. Ten participants were recruited and interviewed in this investigation. When interviews of the participants were compared and analyzed for themes, it was noted by the investigators that all interviewees demonstrated similar elements of ethical reasoning. More than half of the participants reported not feeling comfortable or prepared to tackle ethical problems in their workplace. They indicated struggling to have insight into ethical issues due to being overwhelmed by a new work environment. The researchers also found that while the participants were typically able to identify an ethical dilemma and describe the situation, they demonstrated difficulty understanding and defining the specific ethical values and principles impacted in a given scenario. Additionally, participants reported reluctance to raise concerns about an ethical issue in fear of alienating a more senior colleague and potentially impacting their job. This research study correlated with previous literature that indicated a need for more implicit training for allied healthcare students to improve their comfort and confidence in understanding ethical

dilemmas and making ethical decisions (DeFoor et al., 2020; Huynh & He, 2018; Kenny et al., 2007; VanderKaay et al., 2018).

Kenny et al. (2010) completed a follow-up investigation to the previous study that aimed to understand the ethical reasoning skills of experienced speech-language pathologists. A total of 10 speech-language pathologists with more than five years' experience were interviewed regarding their experiences with ethics. The investigators found that while the participants experienced a wide range of ethical problems, the ways that they managed those problems were similar. While the speech-language pathologists in this study did not use a specific ethical theory or approach to solve ethical problems, the ethical values of autonomy, justice, beneficence, and non-maleficence were all portrayed in their experiences. When the participants described working through more complex ethical dilemmas, they reported they did not consult resources such as a code of ethics, literature, case studies or specific models of ethical decision-making. Participants in this study indicated they used more informal resources such as support networks when working through an ethical dilemma. The results of this study verified previous studies indicating ethical reasoning requires the ability to identify and assess ethical issues, negotiate and resolve conflicts, and communicate effectively with others (Chabon et al., 2011; Kenny et al., 2007; Kummer & Turner, 2011). This study also provided implications for graduate students and novel speech-language pathologists regarding the need for developing ethical reasoning skills early in education and clinical training.

In 2016, the Council for Clinical Certification in Audiology and Speech-Language Pathology (CFCC) completed an extensive review and analysis of the skills and competencies required for entrance into the workforce after completion of graduate education. Based upon the results of this review, changes were made in the standards for audiology and speech-language

pathology certification through ASHA beginning in 2020 (ASHA, 2020b). According to ASHA (2020b), beginning January 1, 2020, those individuals seeking certification in audiology or speech-language pathology must demonstrate completion of at least one hour of training in ethics during a 3-year certification maintenance interval. Prior to these changes, audiologists and speech-language pathologists working toward certification were required to demonstrate completion of 30 hours of ASHA-approved continuing education but there were no specifications as to what topic areas should be addressed within those 30 hours (ASHA, 2020a).

While changes to certification standards were made for practicing speech-language pathologists and new graduates entering the workforce, no specifications or recommendations have been made for curriculum or education changes for graduate students in speech-language pathology regarding ethics education (ASHA, 2020a). According to ASHA (2020a), standards have been designed to guide the education of graduate students in speech-language pathology through accredited graduate programs. Standard IV-E states, “The applicant must have demonstrated knowledge of standards of ethical conduct” (ASHA, 2020a, para. 19). This is further described by indicating that the student must have demonstrated knowledge of the ASHA code of ethics although no specific details are provided as to what the student must know about the code of ethics (ASHA, 2020a). Additionally, Standard IV-G indicates that students must demonstrate understanding and knowledge regarding professional issues which encompasses ethics although again, no descriptions are given regarding what the student should know specifically (ASHA, 2020a). No guidance or specific information is provided as to how ethics should be taught in speech-language pathology graduate programs (ASHA, 2020a).

Laliberte et al. (2015) sought to examine how ethics education was completed in physical therapy and occupational therapy programs in Canada as well as the teaching methods used and

the obstacles faced when teaching ethics. The authors found that the amount of time spent on ethics in physical therapy and occupational therapy programs varied significantly and did not have a specific placement within the curricula. The educational approaches reported to be used most often were readings, problem-based learning, and lectures and these approaches were usually integrated within a course in the curriculum and throughout the curriculum. Participants indicated that barriers to teaching ethics included lack of time allotted specifically for ethics, lack of a cohesive pedagogical approach, lack of resources, and the overall rigidity of the program structure. Furthermore, participants identified a secondary barrier described as a lack of interest in ethics by students due to limited clinical experience, especially in the early stages of their education (Laliberte et al., 2015).

An examination of the literature provided a significant lack of consistency in the use of methods to educate allied healthcare students in ethics and ethical decision-making, specifically speech-language pathology graduate students. Additionally, research regarding comparison of teaching methods was scarce. Most literature looked at the benefits and downfalls of specific teaching methods versus comparing the effectiveness of different teaching methods for ethics education.

### **Methods of Ethics Instruction**

According to Miyasaka et al. (2011), ethics education in allied healthcare has become more formalized and prominent in the curricula of various fields of study in the last four decades. While healthcare professionals must be able to perceive and identify ethical situations, reflect on potential outcomes and practice ethical behavior, there continues to be ongoing debate as to the most appropriate ways to teach ethics to healthcare students (Cannaerts et al., 2014; Miyasaka et al., 2011). Literature suggests ethics education in healthcare is often difficult to integrate into a

rigid system of study and that lack of time becomes a factor in a busy curriculum (Cannaerts et al., 2014; Laliberte et al., 2015; Miyasaka et al., 2011). Additionally, educators in allied healthcare fields indicate challenges in determining the most appropriate, pedagogical methods of teaching ethics to students (Cannaerts et al., 2014).

Miyasaka et al. (2011) described three different approaches to ethics education. The first approach described by the authors is the principle-based approach. This approach utilizes previously established ethical principles and uses them as a checklist or guide when confronted with an ethical situation. An advantage of this approach is the applicability to a variety of situations although, it may be difficult for students to recognize conflicts between ethical principles. The procedure-based approach is based upon casuistry in which ethical principles are applied to specific ethical situations and used to understand the patient's quality of life and preferences as well as the medical implications. This approach was found to be easier for students to understand and use independently although Miyasaka et al. (2011) reported that this approach does not guide the student to an actual solution to the ethical dilemma. Finally, the authors describe the narrative approach in which multiple narratives regarding an ethical situation are examined to determine the best possible ethical decisions and outcomes. This approach facilitates discussion and problem-solving in students but fails to refer to ethical rules and principles that are integral to morality (Miyasaka et al., 2011).

In a systematic review by Cannaerts et al. (2014), the investigators reviewed nursing literature regarding the effectiveness of ethics education and teaching methods on the ethical competence of students. In a total of 15 articles that met inclusion criteria, the authors found that nursing students felt that their ethical awareness and reflection improved after ethics education. The students also indicated an increase in their perception of their own personal values and

limitations. Although nursing students demonstrated increased ethical perception after ethics education, they also reported increased doubt in their ability to solve more complex ethical problems. In the articles reviewed, students reported ethical lectures to be boring and not motivating. Students and nursing instructors found the use of case studies to be engaging and instructional in ethics education. Students reported the case studies helped to improve ethical decision-making although, they indicated they would have liked more time to examine the case studies used. Students and instructors also touted the use of group discussions as the students were able to learn from peer responses. More innovative methods of instruction such as simulation and reflective journaling were noted in two articles. The students indicated that the reflective journaling increased their abilities to question their own morals and values in a constructive manner. The reviewed article regarding simulation indicated that students felt more of the negative feelings that occur in ethical situations in simulation activities and this improved their ability to consider their own clinical practice (Cannaerts et al., 2014).

### *Case Studies*

Current literature speaks to the viability and applicability of case studies in healthcare education for a plethora of topics, specifically ethics (Cannaerts et al., 2014; Laliberte et al., 2015; Miyasaka et al., 2011). Russell and Gunter (2003) reported that the use of case studies as teaching and research tools in ethics education works to integrate the student as an active participant in the decision-making process. When students become active in a given ethical situation, critical thinking skills are stimulated and students improve their ability to differentiate and delineate the most important details, ethical principles potentially violated, as well as determine possible outcomes and consequences of those outcomes (Cannaerts et al., 2014; Russell & Gunter, 2003). Mantie-Kozlowski (2013) completed an investigation to determine if

responses from speech-language pathology graduate students changed when discussing case scenarios that had a high emotional impact versus a low emotional impact. The researcher found that students demonstrated an increase in the amount of discussion as well as the amount of time attempting to solve high emotional impact ethical dilemmas. Additionally, students demonstrated increased cognitive presence when discussing high emotional impact case scenarios as evidenced by offering more new ideas and integrating prior knowledge to the discussions.

Park et al. (2012) indicated that the use of case studies with discussion has been widely recognized as an effective teaching method for ethics in allied healthcare students. The usefulness of the case-study, problem-based learning method is highly dictated by the time allotted for discussion, the depth of the discussion based upon the level of experience of the students, and the role of the educator in facilitating critical thinking during discussion (Kenny et al., 2015; Lin et al., 2010; Park et al., 2012). In a research study by Lin et al. (2010), two methods of ethics education were compared in nursing students. Two separate classrooms of nursing students were provided ethics education using conventional, lecture-based teaching methods as compared to a problem-based (case study) teaching method. The students' knowledge was assessed pre- and post-education using an assessment as well as a satisfaction survey. Results of this study indicated that the students that were educated using the problem-based method performed higher on the post-assessment although both groups improved in ethical awareness and discrimination. Those students that were in the problem-based learning group reported increased satisfaction with their critical thinking skills as compared to the lecture-based learning group. Kenny et al. (2015) completed an investigation to determine if there were differences in the abilities of students, new graduates, and experienced speech-language pathologists to identify ethical issues and the strategies used to manage ethical situations. The

authors found that ethics case scenarios were appropriate tools to use in ethics education of speech-language pathology graduate students in that they prompt different levels of critical thinking and problem-solving. While students were found to have more difficulty recognizing complex issues in ethical case scenarios, new graduates performed better than seasoned speech-language pathologists in this study. The investigators also recommended that while using case studies in ethics education for speech-language pathology students is effective, the complexity of the scenarios used should increase as students gain more clinical experience (Kenny et al., 2015).

Pollard (2015) suggested that use of case scenarios improves relational ethics in allied healthcare students. Relational ethics considers the relationship of the patient, caregiver, and professional and encourages ethical decisions to be made through this relational framework (Pollard, 2015). Bourne et al. (2013) argued that providing ethical case studies and the opportunity to discuss and debrief throughout a student's education allows future healthcare professionals to practice ethical decision-making in a safe, structured environment.

### ***Discussion Groups: Face-to-Face and Online***

Throughout the literature, the use of case-based learning has been combined with discussion groups to improve the pedagogical effectiveness in ethics education (Bourne et al., 2013; Kenny et al., 2015; Lin et al., 2010; Mantie-Kozlowski, 2013). Mantie-Kozlowski (2013) completed an investigation utilizing ethical dilemmas discussed in face-to-face formats as compared to online discussion forums. Results indicated that students tended to contribute more in the online discussion forums. Speech-language pathology students in this study reported feeling more comfortable in posting online rather than discussing resolutions to dilemmas aloud and physically in front of peers. The author found some drawbacks of online discussions in that



some students tended to post only the minimum required and commented on posts back to back, without allowing time for reflection on the posts made by peers (Mantie-Kozlowski, 2013).

To improve the content and amount of reflection completed by students in online discussion posts, Buelens et al. (2007) suggested using guidelines for creating online posts and comments. Buelens et al. (2007) completed an investigation to determine if guidelines for online discussion groups in the ethics education of allied healthcare professionals improved the quality of discussion. The investigators compared three discussion treatment groups in which group one was provided no guidelines for posting, group two was provided basic etiquette guidelines, and group three was provided etiquette guidelines as well as didactic guidelines to encourage critical thinking and reflection instead of stating primarily personal opinion. Results of this study demonstrated that providing students with etiquette and didactic guidelines for online discussion forums yielded longer, more reflective posts as well as decreased the amount of statements with no justification or basis.

As indicated in the literature, online discussion groups can facilitate improved content of and contribution to discussions by students as they allow for time for reflection (Buelens et al., 2007; Loncke et al., 2009; Mantie-Kozlowski, 2013). Loncke et al. (2009) completed a research study to determine if the presence of a facilitator in online discussion forums in ethics education increased the contribution of speech-language pathology graduate students. The researchers found that the presence of a facilitator increased the depth and breadth of conversational dialogue regarding ethical dilemmas in online discussion forums. The presence of a facilitator in the online discussion forums in this study provided models of appropriate discussion responses as well as increased exploration into various topics that may impact the resolution of an ethical dilemma (Loncke et al., 2009).

## *Simulation*

Simulation has long been used in education to provide experience, stimulate critical thinking, and facilitate skills in a safe learning environment (Grillo & Thomas, 2016; Jansen, 2015; Krautscheid, 2017). Simulation is used a variety of fields to educate those learning about a particular topic, for example, driving, flying, cardiopulmonary resuscitation, and medicine (Jansen, 2015). Simulation is described as, “the artificial representation of a real-world process to achieve educational goals via experiential learning” (Jansen, 2015, p. 32).

There are a variety of teaching methods using simulation, including low-tech as in paper-based case studies and problem-based assignments, and high-tech such as high-fidelity virtual reality environments, standardized patients, and computer-based simulation (Grillo & Thomas, 2016; Jansen, 2015; Pinar & Peksoy, 2016). Simulation allows for repeated, deliberate practice of skills as well as practical application of knowledge gained in the classroom, therefore assisting in closing the theory-to-practice gap that often exists for specific skills in allied healthcare fields (Jansen, 2015; Pinar & Peksoy, 2016). Steadman et al. (2006) completed a research investigation to compare the effects of simulation training as compared to case-based discussion in 31 medical students. Participants were allocated to two treatment groups randomly and completed a final assessment after interventions were provided. Results indicated that the use of simulation improved final assessment scores for the experimental group as compared to the final assessment scores for the group that learned skills through case-based discussion. While this investigation demonstrated the superiority of simulation over other teaching methods for clinical skills, there is a significant lack of literature comparing teaching methods in allied healthcare fields (Steadman et al., 2006).

Reflective learning and thinking are crucial parts of the simulation education experience (Grillo & Thomas, 2016; Ruyak et al., 2017). Reflective thinking and learning are facilitated through the prebriefing and debriefing stages of simulation by the instructor. Prebriefing is completed prior to the simulation and is used to “discuss the purpose of the simulation experience, that mistakes are expected and help to facilitate learning, and that students and instructors are expected to be supportive and respectful” (Grillo & Thomas, 2016, p. 8). Debriefing typically occurs immediately after the simulation and students are asked to reflect upon the experience via instructor-guided questions and statements. Debriefing facilitates student self-analysis, enhances learning and critical thinking, and improves the application of knowledge (Grillo & Thomas, 2016; Ruyak et al., 2017).

Allied healthcare students and novice professionals often report a lack of confidence and ability to resolve ethical dilemmas (Grady et al., 2008; Kenny et al., 2007). Learning to identify, interpret, and respond to ethical situations successfully is impacted by previous opportunities to practice decision making and reflect on outcomes and the consequences of decisions (Krautscheid, 2017). Simulation is an education method in which students may rehearse responses to ethical dilemmas in a safe and forgiving environment (Grillo & Thomas, 2016; Jansen, 2015; Pinar & Peksoy, 2016; Ruyak et al., 2017). Krautscheid (2017) completed a research investigation in which 89 nursing students participated in simulation scenarios focused on embedded microethical dilemmas that may occur in nursing practice. Participants in this study were asked to reflect on their experience through writing. Through reflection, nursing students in this investigation reported increased confidence in their communication when dealing with ethical scenarios as well as increased ability to advocate for ethical practice. Participants also reported overcoming fears of failure when faced with ethical dilemmas. In a study by Henderson

et al. (2018), 93 medical students were educated regarding medical ethics using a variety of teaching techniques including, lectures, flipped classrooms, and tutorials in addition to simulation using standardized patients. Using a post-education questionnaire, participants reported they found all of the teaching methods to be a positive learning experience for medical ethics although the majority of participants (85%) indicated that simulation was the most enjoyable method.

A variety of teaching methods are available and used to teach ethics to students in allied healthcare fields (Buelens et al., 2007; Cannaerts et al., 2014; Laliberte et al., 2015; Loncke et al., 2009; Mantie-Kozlowski, 2013; Miyasaka et al., 2011; Ruyak et al., 2017). There is a paucity of literature that compares ethics teaching methods and approaches for healthcare students. Healthcare education programs and curricula use an assortment of teaching methods for ethics education although some programs have chosen to adopt an educational protocol that comprises all or most teaching methods described in the literature (Pollard et al., 2018).

### **Ethics Education Program Development**

Current literature describes best practice for ethics education as using case-based learning, small group discussion, and problem-based reflection and self-analysis. Simulation has also been described as a new innovation in the quest for adequate ethics education in allied healthcare fields (Kenny et al., 2019). Kenny et al. (2007) completed a qualitative research investigation that helped to identify the needs of students in ethics education. Participants in this study indicated that being able to identify ethical issues is imperative although as new professionals, it may be overwhelming to identify ethical dilemmas when attempting to meet other work expectations. Investigators noted that participants often struggled to identify the specific ethical principles and rules violated which tended to increase participants' confusion as

to whether the dilemma was an actual ethical problem. While participants indicated they were familiar with ethical problem-solving methods, they reported they often sought out advice from more experienced colleagues instead of using ethics resources. Although participants reported seeking out expertise from senior colleagues, they indicated a lack of support in that when an ethical issue was brought to light, more experienced peers did not respond to the concerns of the new graduates. Participants in this study also indicated that it was difficult to know when a potential ethical problem was their responsibility and were often hesitant to address an issue in fear of alienating their colleagues.

In understanding the needs of ethics education programs, Kenny et al. (2019) described goals and needs of a comprehensive ethics educational program for allied healthcare students. The authors described four important elements of ethical practice including ethical sensitivity, ethical reasoning, ethical communication, and ethical practice goals for the future. Kenny et al. (2019) recommended using video case studies with the student as the primary character that must resolve the ethical conflict. They also recommended using a principle-based approach to facilitate improved understanding and use of a code of ethics and the language of ethics terminology. Finally, it was recommended that student self-reflection and analysis be facilitated by guiding questions provided by instructors.

Russell and Gunter (2002) also described a recommended protocol for ethics education of students in speech-language pathology. The authors recommended providing a definition of ethics as well as an in-depth study of the code of ethics and the terminology associated with the principles and rules of ethics. The authors suggested applying the knowledge gained initially to a variety of practical application exercises including reviewing ethics resources in speech-language

pathology and other allied healthcare fields, breaking down ethics case studies, and working through problem-solving methods for each case (Russell & Gunter, 2002).

Pollard et al. (2018) proposed a specific curriculum framework for teaching ethics with recommended teaching methods for each component. The authors based this curriculum upon an extensive systematic review of the literature as well as experience in their own practices. The investigators recommended a curriculum comprised of four components. The first component suggested was an introduction to principles of ethics and ethics terminology. The second component of the proposed curriculum included examination of the code of ethics and codes of conduct of the profession. The third component included an introduction to ethical problem-solving approaches as well as steps needed when encountering an ethical issue. The fourth component of the proposed curriculum included increasing awareness of interprofessional team ethical issues. The authors suggested using a variety of teaching methods including reflective journaling, case-based studies, flipped classroom, debate, blended learning via an online platform, polling during problem-based learning, and simulation.

### ***Online Program Efficacy***

Current literature suggests ethics education in healthcare is difficult to weave into a busy curriculum of study due to lack of time and the rigidity of various programs that do not allow for many changes to the timeline of study (Cannaerts et al., 2014; Laliberte et al., 2015; Miyasaka et al., 2011). An asynchronous online education approach may provide flexibility in the pace of learning as well as a level of anonymity that may lend itself to increased self-reflection and analysis (VanderKaay et al., 2018). In a research study by VanderKaay et al. (2018), an asynchronous online ethics education module was implemented with occupational therapy educators. The participants completed a pre- and post-assessment and results indicated that

completing the online module demonstrated statistically significant changes in self-reported ethics knowledge. The authors indicated that while ethical awareness and knowledge appeared to improve via the online module, it was difficult to understand how the online module actually impacted the clinical practice of the participants (VanderKaay et al., 2019).

In a study by Daughrity (2021), first-year speech-language pathology graduate students completed an online, asynchronous learning module regarding cultural competence. A pre- and post-test questionnaire was utilized to determine improvements. The online module was comprised of six short videos with guided self-reflection questions. Results of this study indicated significant changes for all students based upon pre- and post-scores on the knowledge assessment. A limitation of the learning module used in this study was the lack of knowledge application in a case study format or in a simulation situation. While participants demonstrated improved knowledge regarding cultural competence, this knowledge was not applied using case-based learning so it was difficult to determine carryover to clinical practice (Daughrity, 2021).

Based upon the minimal literature available regarding the efficacy and plausibility of online education formats for ethics, it appears that a combination of online and face-to-face instruction or blended learning may be the most feasible option. Use of the online format may facilitate ethical awareness and knowledge and application of the knowledge through face-to-face discussion and simulation may then assist in increasing confidence of students' ability to resolve ethical dilemmas.

## **Summary**

Ethics education and training for allied healthcare students is imperative to develop professionals that are ethically competent with the ability to identify, analyze, and resolve ethical dilemmas in clinical practice (Cannaerts et al., 2014; Laliberte et al., 2015). As

stated, ASHA recently made changes to certification standards for novice and experienced practicing speech-language pathologists with the addition of at least one hour of required formal ethics training for each certification maintenance interval (ASHA, 2020a). While these recent changes have impacted practicing speech-language pathologists and those individuals just entering the workforce, there have been no specific changes or recommendations by ASHA regarding education of graduate students in speech-language pathology as to ethics (ASHA, 2020a).

A review of the literature has demonstrated a lack of formal, specific ethics training at the student level across allied healthcare fields (DeFoor et al., 2020; Grady et al., 2008; Huynh & He, 2018; VanderKaay et al., 2018). Studies have indicated that ethics education completed prior to beginning professional clinical practice improved the overall confidence and clinical skills of individuals as well as increased the use of appropriate resources to solve ethical dilemmas (DeFoor et al., 2020; Huynh & He, 2018; VanderKaay et al., 2018).

While formal ethics training completed at the student level has shown to impact the ethical decision-making skills of the professional, a consensus on the most appropriate teaching method of ethics education is lacking (Buelens et al., 2007; Cannaearts et al., 2014; Laliberte et al., 2015; Loncke et al., 2009; Mantie-Kozlowski, 2013; Miyasaka et al., 2011; Ruyak et al., 2017). There is a significant absence of literature comparing the efficacy of ethics teaching methods in allied healthcare fields. Literature has primarily focused on specific pedagogical methods and their benefits with no comparison between methods. In recent literature, suggestions and recommendations have been made regarding the most appropriate combination of ethics teaching methods as well as suggested curricula (Kenny et al., 2019; Pollard et al., 2018; Russell & Gunter, 2002). While literature provides recommendations for the teaching of



ethics to allied healthcare professionals, there is minimal literature as to the efficacy of the proposed programs.

### **Chapter III: Methodology**

This chapter describes the research methodology used to complete the investigation. The design of this study was a quasi-experimental design in which two non-randomized groups of participants of equal number were compared using a pre- and post-assessment and survey. Quasi-experimental designs lack the randomized assignment of participants to experimental and control groups that is found with experimental research designs (Portney & Watkins, 2015).

#### **Purpose of the Study**

The purpose of this study was to assess the efficacy of the current informal method of instruction for ethics in a graduate speech-language pathology program using content embedded in existing curriculum as compared to a more formal ethics training program. While changes to ethics training guidelines were made in 2020 for practicing speech-language pathologists, the American Speech-Language-Hearing Association (ASHA) has provided no such recommendations or changes regarding ethics education for graduate students (ASHA,2020b). ASHA (2020a) indicates that training of professional skills such as ethics be embedded within the curriculum of a graduate program with no specific guidance regarding instructional method. This study compared the effectiveness of two different instructional approaches for ethics education in speech-language pathology graduate students.

#### **Research Questions**

Does formal ethics training within a course as compared to informal ethics discussions embedded in existing curriculum within a course impact ethical awareness, ethical decision-making and comfort levels in first-year speech-language pathology graduate students?

1. Which method of ethics training results in higher self-reported comfort levels with ethical decision-making as measured on a pre- and post-survey?

2. Which method of ethics training results in higher accuracy in understanding of ethical terminology and ethical decision-making as measured on a pre- and post- ethics assessment?

### **Population and Sampling**

Once approval was obtained from the Murray State University Institutional Review Board (IRB), participants for this investigation were recruited from the speech-language pathology graduate program in the Center for Communication Disorders at Murray State University. Speech-language pathology graduate students completing coursework in the first year of the program were recruited for participation in this study. Upon admittance to the graduate program at Murray State University, students are randomly placed in two separate cohorts designated by a color. During the timeframe of this research, the first-year graduate student cohorts were designated as yellow and blue cohorts, with 12 students in each cohort. Each cohort followed the same plan of study with a slightly different sequence of coursework involving two courses within the first year. The yellow cohort was enrolled in a voice disorders course during the first fall semester of their programming whereas, the blue cohort was enrolled in a speech disorders course. During the second semester, in the spring, this course sequence switched with the yellow cohort enrolled in speech disorders and the blue cohort enrolled in voice disorders. All other courses are delivered in the same sequence for both cohorts throughout the two years of the graduate program. An informed consent document was presented and explained to potential participants. If participants chose to participate in the study and met inclusion and exclusion criteria, participants completed the ethics survey and ethics test three separate times during the investigation as well as completing the formal ethics training module.

### ***Inclusion and Exclusion Criteria***

Inclusion criteria for this investigation included being admitted to and attending the graduate speech-language pathology program in the Center for Communication Disorders at Murray State University. Participants had to be enrolled in CDI 624 Assessment and Intervention in Voice Disorders at some point during their first year of graduate study in the program. Participants were excluded from this investigation if they had received ethics training that is external to the curriculum in communication disorders at Murray State University. This was discerned through the survey that was completed at the beginning of the study.

### **Confidentiality and Anonymity**

To maintain anonymity and confidentiality, participants were provided a participant code for all instrumentation instead of using any potentially identifying information. A research assistant created and assigned participant codes and the primary researcher did not have access to the list of participant codes and the corresponding participant throughout the research investigation or after data was collected. The research assistant maintained the list of participant codes and participants as a password-protected file. All data collected throughout the investigation was stored in a locked cabinet in the primary researcher's locked office at Murray State University. This data will be kept for three years and will then be destroyed.

### **Instrumentation**

Upon a search of literature, no validated ethics knowledge assessment instruments in speech-language pathology were able to be located. The primary researcher created a 10-item, multiple choice pre- and post-test to assess knowledge of ethical terms and principles as well as ethical decision making of participants (see Appendix A). During measurement development, construct validity was determined by administering the ethics test to faculty members in the

Center for Communication Disorders as well as senior undergraduate students in the communication disorders major. Faculty members in the Center for Communication Disorders have completed formal ethics training as part of certification maintenance for professionals whereas, undergraduate students in the communication disorders major have not had formal ethics training. Upon first administration of the ethics test during measurement development, four items that addressed terminology of ethical principles had a high success rate among both faculty and undergraduate students. These items were reworked to increase the level of difficulty from defining the terminology to applying the definition of the terminology to various ethical situations (see Appendix B). Upon first administration of the ethics test to faculty and undergraduate students, there was no significant difference in scores between groups,  $t(8) = 1.73$ ,  $p > .05$ . There was a significant difference between faculty and undergraduate scores on the second version of the ethics test,  $t(8) = 2.44$ ,  $p < .05$ , such that the faculty scored higher ( $M = 4.25$ ,  $SD = 1.09$ ) than the undergraduate students ( $M = 2.75$ ,  $SD = 0.83$ ).

A pre- and post-survey made up of a total of five questions was also created by the primary investigator. Three questions used a 5-point Likert scale to determine the comfort level of participants in navigating ethical situations. Two questions on the survey were yes/no questions asking about prior ethics training as well as if the participant has experienced an ethical/unethical situation previously (see Appendix C).

### **Data Collection and Analysis**

Prior to the second half of the 2021 fall semester, participants were recruited for participation in the study from the yellow and blue graduate cohorts of students enrolled in the Murray State University Center for Communication Disorders speech-language pathology graduate program. Individuals in the yellow cohort that were enrolled in CDI 624 Assessment

and Treatment of Voice Disorders and individuals in the blue cohort that were enrolled in CDI 620 Speech Sound Disorders that chose to participate in the research completed the ethics test and survey. Over the next six weeks, participants in the yellow cohort completed a formal ethics training module on Canvas (see Appendix D). Canvas by Instructure© is a learning management platform that is used in all graduate courses at Murray State University. The formal ethics training module on Canvas was comprised of online discussion boards, access to resources regarding ethics in speech-language pathology, case studies, reflections upon peer posts, and small group discussions to introduce ethical terminology and principles as well as ethical decision-making models (Pollard et al., 2018). There was the possibility of inherent bias in this investigation as the primary investigator created both the formal ethics training module and the ethics assessment. During this same timeframe, participants in the blue cohort received ethics training that was embedded within the curriculum of the CDI 620 course. Ethics training embedded within the course curriculum included discussions regarding ethical principles and terminology and ethical decision-making examples provided through case studies. At the end of six weeks, prior to the end of the fall 2021 semester, participants completed the ethics test and survey again.

At the beginning of the spring 2022 semester, participants in the blue cohort were then enrolled in CDI 624 Assessment and Treatment of Voice Disorders and completed the formal ethics training module. Participants in the yellow cohort were enrolled in CDI 620 Speech Sound Disorders and received ethics training that was embedded within the curriculum. At the end of six weeks, prior to midterm of the spring 2022 semester, participants in both cohorts completed the ethics test and survey.

## Chapter IV: Results

Recruitment for this investigation began after IRB approval was received. Participants were recruited from the blue and yellow cohorts of graduate students in the Murray State University speech-language pathology graduate program. Twenty-three of 24 potential participants agreed to participate in the investigation. One student in the blue cohort was not available at the initial recruitment for this investigation due to being ill. One of the questions posed on the ethics survey inquired about prior ethics training outside of Murray State University's curriculum (see Appendix C). Three participants (13%) indicated that they had received ethics training outside of the curriculum, therefore excluding these participants from the investigation. These participants completed the formal ethics training module and each administration of the survey and test but this data was excluded from the data analysis throughout the investigation.

### **Ethics Survey**

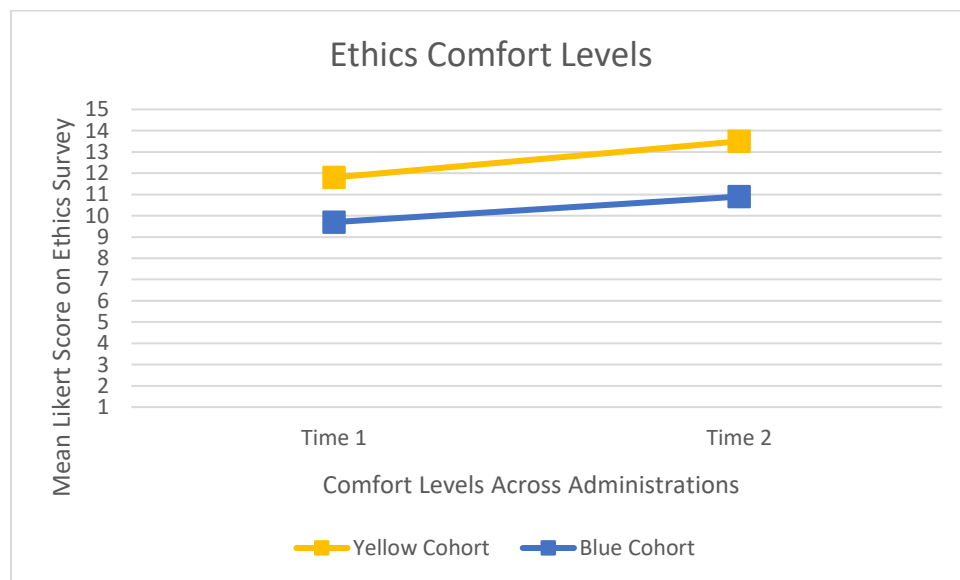
One purpose of this study was to determine which method of ethics training resulted in higher self-reported comfort levels with ethical decision-making as measured on a pre- and post-survey. Prior to completing the Likert portion of the survey, a second yes/no question on the survey asked about participant experiences with unethical situations that made them feel uncomfortable. Of the participants (n=20) that were eligible for the study, 65% (13/20) reported they had experienced an unethical situation that made them uncomfortable.

Participants completed a short, Likert-scale survey to rate level of comfort in identifying unethical or illegal situations as well as making ethical decisions (see Appendix C). According to the results, 55% of participants (11/20) reported feeling comfortable or very comfortable with identifying and solving ethical problems prior to any training. Interestingly, 55% of participants

(11/20) demonstrated no change in comfort or decreased comfort after the formal ethics training was completed while 45% (9/20) reported an increase in comfort after training. The data were further analyzed using Statistical Analysis Software. A t-test analysis was completed between groups across the first and second administrations of the survey. At the first administration of the survey, there was a significant difference in the comfort levels between groups,  $t(18) = 2.10, p = 0.05$ , such that the yellow cohort reported higher comfort levels ( $M = 11.8, SD = 1.93$ ) than the blue cohort ( $M = 9.7, SD = 2.50$ ) (see Table 1). At the second administration of the survey, after the yellow cohort had completed the formal ethics training module and the blue cohort had received ethics training embedded in the curriculum, there continued to be a significant difference in the comfort levels between groups,  $t(18) = 2.28, p < 0.05$  (see Figure 1 and Table 1).

**Figure 1**

*Ethics Comfort Level Mean Changes Across Administration Times*

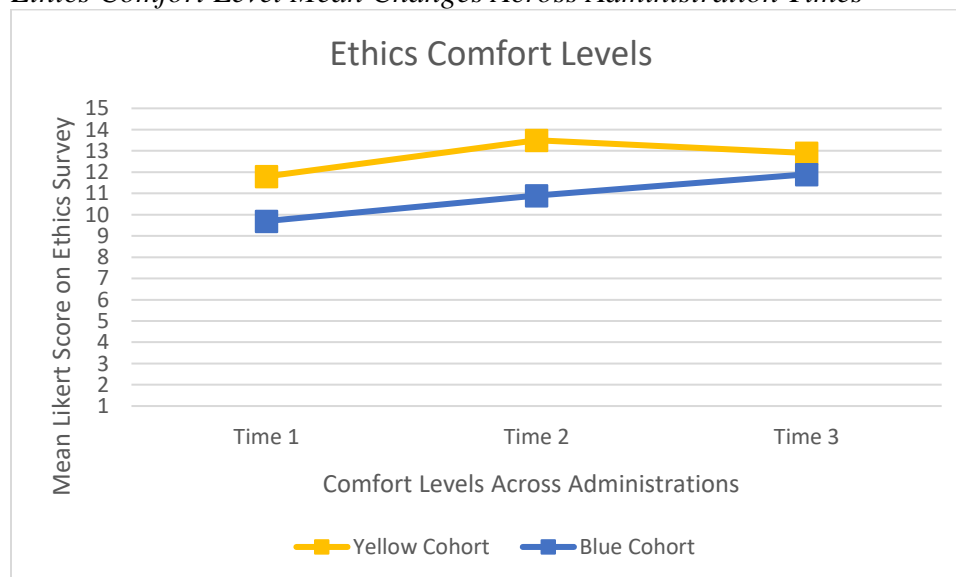




**Table 1***Means and Standard Deviations Across Administration Times*

| Skill Measured   | Yellow Cohort (n=10)    |                         |                         | Blue Cohort (n = 10)    |                         |                         |
|------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                  | Time 1<br><i>M (SD)</i> | Time 2<br><i>M (SD)</i> | Time 3<br><i>M (SD)</i> | Time 1<br><i>M (SD)</i> | Time 2<br><i>M (SD)</i> | Time 3<br><i>M (SD)</i> |
| Ethics Knowledge | 5.6 (1.26)              | 6.1 (1.66)              | 5.8 (1.23)              | 4.9 (1.37)              | 3.6 (1.84)              | 6.4 (1.78)              |
| Ethics Comfort   | 11.8 (1.93)             | 13.5 (1.65)             | 12.9 (1.37)             | 9.7 (2.50)              | 10.9 (3.21)             | 11.9 (1.73)             |

Once the blue cohort completed the formal ethics training module and the yellow cohort received ethics training embedded in the curriculum, the ethics survey was administered again. At the third administration, there was no significant difference in comfort levels between groups, indicating no difference in comfort in identifying and solving ethical problems after both groups had received the training,  $F(1) = 2.05, p > 0.05$  (see Table 1 and Figure 2).

**Figure 2***Ethics Comfort Level Mean Changes Across Administration Times*

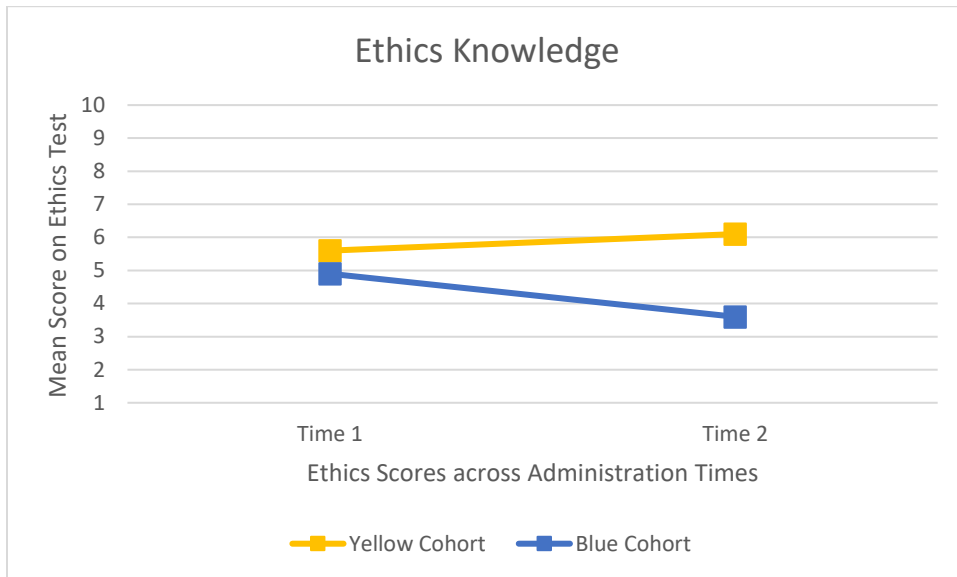
A MANOVA statistics analysis was used to examine the association between graduate student comfort levels in solving ethical problems as the dependent variable and time as the independent variable. Comfort level changes across administration times were found to be significant (Wilks' Lambda = 0.64,  $F(2, 17) = 4.80$ ,  $p = 0.02$ ), indicating that comfort levels were different depending on the time the data were gathered, i.e. prior to or following the ethics training. There was no significant interaction between time and group for comfort levels (Wilks' Lambda = 0.81,  $F(2, 17) = 2.03$ ,  $p = 0.16$ ).

### **Ethics Test**

Another purpose of this study was to determine which method of ethics training resulted in higher accuracy in understanding of ethical terminology and ethical decision-making as measured on a pre- and post- ethics assessment. The data were again analyzed using Statistical Analysis Software. At each data collection time, participants were instructed to complete an ethics test (see Appendix B). The results on the ethics assessment, prior to any ethics training for both groups, there was no significant difference in knowledge between groups,  $t(18) = 1.19$ ,  $p = 0.45$  (see Table 1 and Figure 3). After formal ethics training was completed by the yellow cohort and ethics training was embedded in the curriculum for the blue cohort, the ethics test was administered again. There was a statistically significant difference in knowledge between groups at the second administration time,  $t(18) = 3.19$ ,  $p < 0.01$  (see Table 1 and Figure 3), such that the yellow cohort scored higher ( $M = 6.1$ ,  $SD = 1.66$ ) than the blue cohort ( $M = 3.6$ ,  $SD = 1.84$ ) (see Table 1).

**Figure 3**

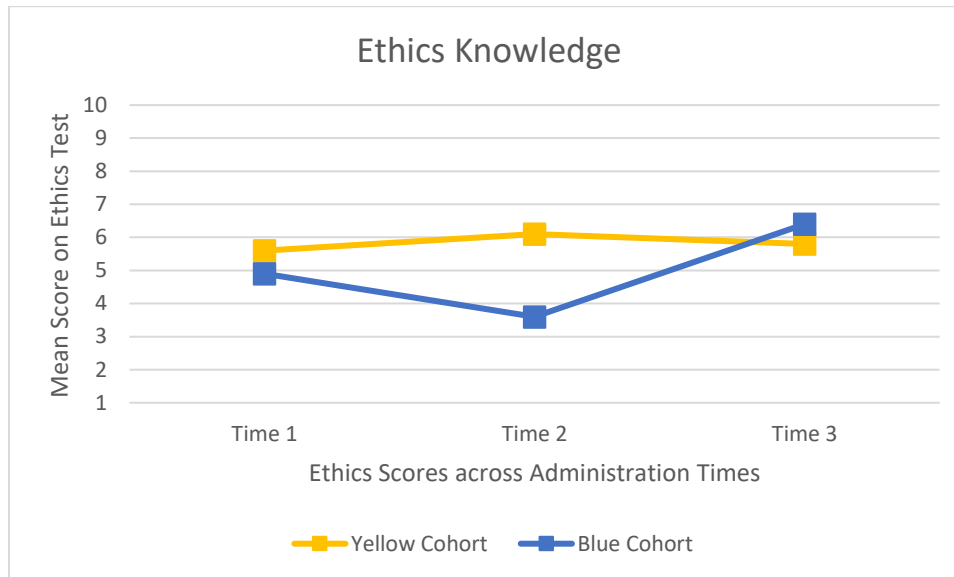
*Ethics Knowledge Mean Changes Across Administration Times*



After the blue cohort completed the formal ethics training module and the yellow cohort received ethics training embedded in the curriculum, the ethics test was administered again. At the third administration time, after both groups had received the formal ethics training, there was no significant difference in ethics knowledge between groups,  $t(18) = 0.77$ ,  $p = 0.39$  (see Table 1 and Figure 4).

**Figure 4**

*Ethics Knowledge Mean Changes Across Administration Times*



A MANOVA statistics analysis was used to examine the association between graduate students' ethics knowledge as the dependent variable and time as the independent variable. When collapsed across groups, there was a significant change in scores over time (Wilks' Lambda = 0.57,  $F(2, 17) = 6.38$ ,  $p = 0.009$ ). There was also a significant interaction between time and group for ethics knowledge (Wilks' Lambda = 0.49,  $F(2, 17) = 8.94$ ,  $p = 0.002$ ).

## **Chapter V: Discussion and Conclusion**

The purpose of this research investigation was to examine the efficacy of the current informal method of instruction for ethics in a graduate speech-language pathology program using content embedded in existing curriculum as compared to a more formal ethics training program. The methods of instruction were assessed regarding their impact on the dependent variables of self-reported comfort in identifying and solving ethical problems and ethics knowledge across two participant groups. The findings of this study support the use of formal ethics training to increase ethics knowledge in first-year speech-language pathology graduate students.

### **Ethics Comfort Levels**

New graduates in speech-language pathology often report experiencing ethical distress or ethical uncertainty when faced with an ethical dilemma (Bourne et al., 2013). As reported by Kenny et al. (2007), new speech-language pathology graduates indicated feeling uncomfortable and not prepared to identify and solve ethical dilemmas in their workplace after graduating, often secondary to feeling overwhelmed with being in a new environment. Huynh and He (2018) also reported new healthcare professionals experience stress and anxiety when dealing with ethical conflicts in addition to all other duties. Over half of the participants in this study (65%) indicated that they had experienced an ethical situation that made them uncomfortable. Additionally, almost half of the participants (45%) reported that they did not feel completely comfortable in identifying or solving ethical problems prior to any ethics training. These findings correlated with previous studies that indicated new healthcare professionals often demonstrate discomfort in facing and working through ethical dilemmas (Bourne et al., 2013; Buelow et al., 2010; Cannaerts et al., 2014; Huynh & He, 2018; Kenny et al., 2007).

Cannaerts et al. (2014) reported that to achieve ethical competence, individuals must be able to perceive what an ethical situation presents, reflect upon personal moral values and ethical values of a profession, and then apply ethical decision-making models. While 45% of participants in this investigation indicated discomfort in their ability to identify or solve ethical problems, 55% indicated that they felt comfortable or very comfortable in their ethical abilities prior to any ethics training. Interestingly, one participant group reported higher means of comfort than the other group and these differences were statistically significant prior to any group receiving training. Although participants rated perceived comfort at varying levels, 55% of participants rated their comfort the same or lower after training. This finding correlated with research completed by Persky et al. (2020) in which the Dunning-Kruger effect is described as the phenomenon that occurs when individuals overestimate their abilities prior to education or training. This also relates to the research by Kenny et al. (2007) that indicated new speech-language pathology graduates experienced ethical uncertainty when finally employed in the field after graduate school.

In the current study, after both groups had received the formal ethics training, there was no longer a significant difference between groups in comfort levels in identifying and solving ethical dilemmas. This finding correlated with Kenny et al. (2010) in which the authors determined a need to facilitate ethical reasoning skills in new speech-language pathology graduates in a more formal manner. Huynh and He (2018) indicated that without formal ethics training and practice, new healthcare professionals tended to deal with ethical conflicts using their own moral code and eventually changed views to imitate expectations of others rather than a code of ethics.

## **Ethics Knowledge**

Current literature has identified a theory to practice gap indicating that while healthcare students may benefit from informal methods of ethics education, more structured, formal methods of education may help to close the gap and facilitate ethical professional practice when in the field (Kenny et al., 2019; Pollard et al., 2018). In this study, two cohorts of speech-language pathology graduate students demonstrated similar ethics knowledge with no significant difference prior to any method of ethics training. Pollard et al. (2018) found minimal evidence as to the most appropriate and effective methods of educating healthcare students about ethical principles, bioethical terms, and management of ethical issues. Formal ethics training in this study was comprised of training to the American Speech-Language-Hearing Association's code of ethics, bioethical terms, ethical principles, and ethical decision-making models using a flipped-class approach as well as reflections, discussions, case studies, and application of decision-making models (Pollard et al., 2018).

After the yellow cohort received formal ethics training and the blue cohort received ethics training embedded within the curriculum, ethics knowledge significantly increased in the yellow cohort as compared to the blue cohort. Interestingly, the participants in the blue cohort actually demonstrated decreased knowledge after receiving ethics training embedded in the course. This finding correlated with research completed by Cannaerts et al. (2014) that indicated that unstructured ethics education for healthcare professionals often demonstrates a lack of a logical approach and leads to confusion rather than understanding. The authors suggested that ethics training for this population would be best addressed with formal, ethics-specific training modules (Cannaerts et al., 2014).

After the blue cohort completed the formal ethics training module, ethics knowledge for this group significantly increased. There was no longer a difference in ethics knowledge between groups after both groups completed the formal ethics training. These results correlated with findings by Kenny et al. (2019) that suggested that by focusing on and practicing the use of bioethical terms and ethical principles, the language of ethics is facilitated in a way that generalizes to ethical dilemmas. In providing a formal ethics training module for speech-language pathology graduate students, the ethical distress and confusion that has been reported in previous studies may be reduced (Cannaerts et al., 2014; DeFoor et al., 2020; Huynh & He, 2018).

### **Practical Significance**

Formal ethics training in this study demonstrated an increase in ethics knowledge of first-year speech-language pathology graduate students. Formal ethics training not only influenced the knowledge of ethics for students, it has the potential to impact clinical and academic instructors in the graduate program as well as speech-language pathology professionals that the students will be working with in the future. Clinical and academic instructors in the graduate program at Murray State University supervise and instruct first-year speech-language pathology graduate students providing services to clients with communication disorders. Students are graded not only on their clinical assessment and treatment skills but also on their professional and ethical skills. Formal ethics training impacts clinical and academic instructors in that students have been exposed to the language of ethics and therefore, may better engage in discussions and service provision using that foundational ethical knowledge (Fox et al., 1995; Kenny et al., 2019). Providing a foundation for ethics through formal ethics training in a graduate program also has the capability of impacting practicing speech-language pathologists as students progress through



the program and engage with professionals in the field while completing off-site clinical placements and their clinical fellowship. By beginning ethical training and conversations early in graduate education, students begin to form a professional code of conduct instead of relying on their own moral code (Fox et al., 1995).

### ***Impact on Organizational Changes in Ethics Education***

This investigation demonstrated the effect of formal ethics training resulting in increased ethics knowledge with first-year speech-language pathology graduate students as compared to ethics training that was embedded in a course. The Council for Clinical Certification for Audiology and Speech-Language Pathology indicates that students must have a demonstrated knowledge of ethical conduct standards as well as knowledge of professional issues. Although students must demonstrate ethics and professional knowledge and skills, it is not specified as to a recommended method of education for ethics and professionalism with graduate students and is recommended that this training be embedded within the curriculum of a graduate program (ASHA, 2020a). An embedded approach to ethics training for healthcare professionals has not been shown in the literature as an effective method of education (Sanders & Hoffman, 2010). Variability of how ethics education is embedded within a curriculum across graduate programs as well as the inconsistency in how instructors choose to teach ethics in a course greatly impacts the overall consistency of knowledge that graduate students in speech-language pathology have upon entrance to the field after graduation (Kenny et al., 2007; Kenny et al., 2010). Far more research is needed regarding formal and informal training methods for ethics in speech-language pathology graduate students. With more research and evidence for a given method, governing organizations may then change the standards for how ethics is taught in the student population.

### *Logistics of Implementing the Formal Ethics Training Module*

The formal ethics training module in this study lasted for six weeks and was completed as a part of enrollment in a particular course in the Murray State University graduate curriculum. The 6-week timeframe for the ethics training provided in this investigation proved to facilitate significant changes in ethics knowledge in graduate speech-language pathology students. This correlated with previous literature that indicated an ethics education course lasting 3-12 weeks provided the most benefit for healthcare students' ethical reasoning skills (Park et al., 2012).

In this investigation, the formal ethics training module was implemented in the first year of the curriculum for speech-language pathology graduate students. Typically, students in their first year of a graduate program are heavily engaged in coursework to build upon foundational knowledge gained at the undergraduate level. The formal ethics training module in this study was initiated in the first year as students in their second year are typically off-campus at clinical placements and previous literature indicated exposure to ethics in the first year may increase independent ethical decision-making by the time the student enters the field (Park et al., 2012).

The ethics training module created and utilized in this study was a hybrid of online and in-person discussions in addition to short lectures, exposure to ethics resources, and group practice in applying an ethical decision-making model to a case study. The teaching methods employed in this investigation provided opportunities for analysis of case studies and possible solutions as well as discussion of bioethical factors and ethical principles. It allowed for scaffolding of ethics education to improve identification and interpretation of ethical situations, application of bioethical terms and principles to a given situation, and analysis of an ethical dilemma using decision-making models. The module in this study was formulated and

implemented based upon recommendations from the literature as to best practice in methods of ethics education (Pollard et al., 2018). As significant changes in ethics knowledge were demonstrated by speech-language pathology graduate students in this study after receiving the formal ethics training, it can be tentatively concluded that the structure of this training module was effective and appropriate.

### ***Challenges, Generalizability, and Transferability of the Formal Ethics Training Module***

Previous research has shown that allied healthcare education curricula are often busy and packed with information relating to the field with little room for the addition of formal educational topics. Additionally, challenges have been noted as to what should actually be taught in an ethics education program (Laliberte et al., 2015). The results of this study provided preliminary information as to how to incorporate a formal ethics training program into a busy curriculum. By integrating a regimented ethics training module into a graduate program, consistency of knowledge across students as well as outcomes of ethics training are easier to measure, therefore providing much needed evidence as to the necessity for formal training.

The formal ethics training module in this study was initiated by educating students to general ethical foundational knowledge that is applicable across professions, including those outside of the allied healthcare continuum. The ethics training module became more specialized to speech-language pathology as the program progressed. In this investigation, ethics knowledge increased after formal ethics training was received as compared to embedded ethics training indicating that the training module was effective. Professional conduct, regardless of occupation, is guided by a set of rules based upon the bioethical principles of beneficence, non-maleficence, justice, and autonomy. This investigation and the formal ethics training module utilized provides a basic framework for educating students of varying professions therefore, demonstrating the

potential transferability and generalizability of the module. While the initial training activities would remain similar to those used in this study, later activities could be modified to be more specific to a given occupation or profession.

### **P-20 Implications**

This investigation provides implications specifically for the P-20 learning outcome of leadership. In providing speech-language pathology graduate students with ethics knowledge at the beginning of their clinical and educational journey, the skill of leadership is being implemented in that students feel more comfortable in identifying and working through solutions to ethical problems. Horner (1997) described leadership as a process in that there are not necessarily designated leaders and followers but all “members of a community of practice” (p. 277). By providing training to ethics knowledge early in the speech-language pathology graduate students’ education, leadership is facilitated as a group united in shared beliefs and values therefore providing confidence for later exposure to unethical situations (Horner, 1997). Smith et al. (2017) described transformational leadership as having a collective merit system that guides the purpose of the individuals on a team. In arming graduate students’ in speech-language pathology with the knowledge and skills to identify and solve ethical problems, transformational leadership is facilitated (Smith et al., 2017).

In addition to leadership, the P-20 outcome of innovation is facilitated through this investigation. The ability to explore solutions to complex problems and determine the most appropriate course of action demonstrates innovation in students (Pollard et al., 2018). An ethical dilemma occurs when values or beliefs of an individual or group are in conflict and no clear course of action is the best (Kummer & Turner, 2011). By providing graduate students in speech-language pathology with the ability to consider all angles of a problem and determine the most

appropriate solution, innovation is enabled. In this study, students are provided a framework for identifying moral conflicts and considering the benefits or disadvantages of all possible solutions to a dilemma (Kummer & Turner, 2011).

A third primary P-20 initiative is implementation of learned skills to the workforce. The ethics training module investigated in this study provides graduate students in speech-language pathology with tools to take to off-site placements as well as to future jobs. By providing ethics training at the graduate level, students may then implement learned ethical strategies in the workplace and decrease the ethical distress and ethical uncertainty that is often common for new graduates (Bourne et al., 2013; Kenny et al., 2007). As the literature has indicated, stress and anxiety in learning and applying educational knowledge by novice healthcare professionals often supersedes the ability to identify and solve complex ethical problems adequately (Huynh & He, 2018). In beginning formal ethical training early in a students' educational career, this may improve overall implementation of learned decision-making models.

### **Limitations**

One limitation of this study was the number of participants. Murray State University is a small, regional university in western Kentucky and typically accepts 24 students into the speech-language pathology graduate program each year. This is comparative to most of the universities in the Midwest region of the United States (ASHA, n.d.b). There were only 24 potential participants available that met the inclusion criteria for this study, therefore limiting the total number of participants that completed the ethics survey and ethics test which allowed outliers that could skew the data. An increased number of participants completing the survey and test would have provided more accurate group means and a smaller margin of error (Portney & Watkins, 2015).

Another limitation of this investigation was the lack of standardized assessment for ethics knowledge in speech-language pathologists or speech-language pathology graduate students. A search was completed to determine the existence of a standardized assessment but none was found. The investigator created a survey and ethics knowledge assessment for this investigation and the lack of standardization with these instruments potentially increased error in measurement of ethics knowledge (Portney & Watkins, 2015).

First-year graduate students in speech-language pathology typically have a lack of experiential learning as to applying knowledge and skills in clinical practice because they are taking coursework in the curriculum. In the educational setting, when students are allowed to provide therapy services to individuals, they are typically supported heavily by supervisors that have years of experience. The lack of experience of first-year graduate students in speech-language pathology in this investigation potentially impacted the perception of comfort levels in identifying and solving ethical dilemmas, therefore skewing the ratings of comfort.

A final limitation in this investigation was observed during recruitment in that the exclusion criteria could have been explained more thoroughly to increase the potential participants' understanding to what ethics training outside of Murray State University's curriculum meant. This may have increased the number of total participants that were able to complete the study as three participants indicated they had received prior ethics training which then excluded them from the investigation.

### **Future Research**

Future research in the area of formal ethics training in speech-language pathology graduate students is needed due to the lack of studies that focus on ethics training at this level. Replication of this study in a larger group of graduate students in speech-language pathology

across universities would provide additional information as to efficacy of the formal ethics training program for this population.

Using this same group of participants, a follow-up study to determine comfort levels and ethics knowledge during their first year of clinical practice after graduating would provide relevant information regarding changes in perception of comfort as well as increases or decreases in ethics knowledge. Once these students have gained more clinical experience in the field, potentially facing ethical dilemmas more frequently, it is anticipated that comfort levels in their abilities to identify and solve ethical problems may decrease.

An additional investigation that included a follow-up survey with the participants of the current study after they have been practicing in the speech-language pathology field for at least a year would provide information as to if they felt that the early formal ethics training was beneficial. It would also provide information about the ethical decision-making process that those individuals use to solve ethical problems.

A comparison study that considers the ethics knowledge of speech-language pathology graduate students after formal ethics training at Murray State University to experienced speech-language pathologists' ethics knowledge would provide information as to what aspects of the formal ethics training program are most beneficial for students. Additionally, this would provide information as to how to improve the ethics training module for future students in the speech-language pathology graduate program at Murray State University.

## **Conclusions**

The results of this study add to the empirical evidence that exists regarding the effectiveness of formal ethics training in healthcare professionals. While ethics training embedded in a program curriculum may provide opportunities for discussion about ethical

dilemmas, the lack of structured training regarding the language of ethics impacts the abilities of the new healthcare professional to be adequately prepared to apply ethical decision-making models effectively (Huynh & He, 2018; Kenny et al., 2010). Often, traditional university speech-language pathology graduate curricula reflect traditional silos of study in which ethics and professional issues are taught in an unstructured, embedded manner (Buelow et al., 2010; Kenny et al., 2010). The results of this investigation correlated with current literature as to the benefit of providing students with structured training to ethical foundations, ethical language, and decision-making frameworks which represent a set of skills that are necessary for practicing systematic and effective healthcare (Buelow et al., 2010). This study demonstrated that formal ethics training in speech-language pathology graduate students increased the knowledge of students prior to clinical practice, therefore approximating the theory-to-practice gap that currently exists (Kenny et al., 2019; Pollard et al., 2018).



## References

- American Speech-Language-Hearing Association (n.d.a). *ASHA's Code of ethics and assistants code of conduct and principles associated with their enforcement*.  
<https://www.asha.org/practice/ethics/boe-code-enforcement/>
- American Speech-Language-Hearing Association (n.d.b). *ASHA EdFind*.  
<https://www.find.asha.org/ed#sort=relevancy>
- American Speech-Language-Hearing Association (2016). *Code of ethics*.  
<https://www.asha.org/code-of-ethics>
- American Speech-Language-Hearing Association. (2020a). *2020 Standards and implementation procedures for the certificate of clinical competence in speech-language pathology*.  
<https://www.asha.org/Certification/2020-SLP-Certification-Standards/>
- American Speech-Language-Hearing Association. (2020b). *Professional development requirements for the 2020 audiology and speech-language pathology certification standards*. <https://www.asha.org/Certification/Prof-Dev-for-2020-Certification-Standards/>
- Beulens, H., Totte, N., Deketelaere, A., & Dierickx, K. (2007). Electronic discussion forums in medical ethics education: The impact of didactic guidelines and netiquette. *Medical Education, 41*, 711-717.
- Bourne, E., Sheepway, L., Charlton, N., Kilgour, A., Blackford, J., Alam, M., & McAllister, L. (2013). Ethical awareness in allied health students on clinical placements: Case examples and strategies for student support. *Journal of Clinical Practice in Speech-Language Pathology, 15*(2), 94-98.

- Buelow, J. R., Mahan, P. L., & Garrity, A. W. (2010). Ethical dilemmas as perceived by healthcare students with teaching implications. *Journal of College Teaching & Learning*, 7(2), 85-92.
- Cannaerts, N., Gastmans, C., & Dierckx de Casterle, B. (2014). Contribution of ethics education to the ethical competence of nursing students: Educators' and students' perceptions. *Nursing Ethics*, 21(8), 861-878.
- Chabon, S. S., Hale, S. T., & Wark, D. J. (2008). Triangulated ethics: The patient-student-supervisor relationship. *The ASHA Leader*, 13(2), 1-4.
- Chabon, S., Morris, J. & Lemoncello, R. (2011). Ethical deliberation: A foundation for evidence-based practice. *Seminars in Speech and Language*, 32(4), p. 298-308.
- Connelly, S., Helton-Fauth, W., & Mumford, M. D. (2004). A managerial in-basket study of the impact of trait emotions on ethical choice. *Journal of Business Ethics*, 51, 245-267.
- Daugherty, B. (2021). Exploring outcomes of an asynchronous learning module on increasing cultural competence for speech-language pathology graduate students. *American Journal of Speech-Language Pathology*, published online, 1-9.
- Davidson, S. A. & Denton, D. R. (2010). Ethics compliance: Enforcing ASHA's code of ethics. *Perspectives on Fluency and Fluency Disorders*, 20(3), 71-75.
- DeFoor, M. T., Chung, Y., Zadinsky, J. K., Dowling, J., & Sams, R. W. (2020). An interprofessional cohort analysis of student interest in medical ethics education: A survey-based quantitative study. *BMC Medical Ethics*, 21(26), 1-9.
- Dunbar, W. S. (2005). Emotional engagement in professional ethics. *Science and Engineering Ethics*, 11(4), 535-551.

- Feinsod, F. M. & Wagner, C. (2008). The ethical principle of justice: The purveyor of equality. *Annals of Long-Term Care*, 16(1).
- Fox, E., Arnold, R. M., & Brody, B. (1995). Medical ethics education: Past, present, and future. *Academic Medicine*, 70(9), 761-768.
- Grady, C., Danis, M., Soeken, K. L., O'Donnell, P., Taylor, C., Farrar, A., & Ulrich, C. M. (2008). Does ethics education influence the moral action of practicing nurses and social workers? *American Journal of Bioethics*, 8(4), 4-11.
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science*, 293(5537), 2105-2108.
- Grillo, E. U. & Thomas, C. M. (2016). Using high-fidelity simulation to facilitate graduate student clinical learning. *Perspectives on Issues in Higher Education*, 1(10), 4-15.
- Henderson, H., Ballard, I., Alsuwaidi, L., Thomas, R., & Ezimokhai, M. (2018). Simulation: Teaching medical ethics to first year medical students within the United Arab Emirates. *MedEdPublish*, 7(1), 1-13.
- Horner, M. (1997). Leadership theory: Past, present and future. *Team Performance Management*, 3(4), 270-287.
- Hughes, M. T. & Rushton, C. H. (2022). Ethics and well-being: The health professions and the COVID-19 pandemic. *Academic Medicine*, 97(3S), S98-S103.
- Huynh, A. & He, H. (2018). RN-BSN students desire more healthcare ethics education. *International Journal of Nursing & Clinical Practices*, 5(300), 1-5.
- Jansen, L. J. (2015). The benefits of simulation-based education. *Perspectives on Issues in Higher Education*, 18, 32-41.

- Kenny, B., Lincoln, M., & Balandin, S. (2007). A dynamic model of ethical reasoning in speech pathology. *Journal of Medical Ethics, 33*, 508-513.
- Kenny, B., Lincoln, M., & Balandin, S. (2010). Experienced speech-language pathologists' responses to ethical dilemmas: An integrated approach to ethical reasoning. *American Journal of Speech-Language Pathology, 19*, 121-134.
- Kenny, B., Lincoln, M., & Killian, F. (2015). Ethics cases: Do they elicit different levels of ethical reasoning? *Journal of Academic Ethics, 13*, 259-275.
- Kenny, B., Thomson, K., Semaan, A., Di Michele, L., Pollard, N., Nicole, M., Jimenez, Y., & McAllister, L. (2019). Ethics in professional practice: An education resource for health science students. *International Journal of Practice-based Learning in Health and Social Care, 7*(1), 86-101.
- Kidder, R. M. (1995). *How Good People Make Tough Choices: Resolving the Dilemmas of Ethical Living*. Fireside.
- Knight, C., Mayo, R., & Porter, M. (2017). Interdisciplinary ethics learning in higher education: Students' perceptions. *Teaching and Learning in Communication Sciences & Disorders, 1*(2), 1-22.
- Krautscheid, L. C. (2017). Embedding microethical dilemmas in high-fidelity simulation scenarios: Preparing nursing students for ethical practice. *Journal of Nursing Education, 56*(1), 55-58.
- Kummer, A. W. & Turner, J. (2011). Ethics in the practice of speech-language pathology in health care settings. *Seminars in Speech and Language, 32*(4), 330-337.

Laliberte, M., Hudon, A., Mazer, B., Hunt, M. R., Feldman, D. E., & Williams-Jones, B. (2015).

An in-depth analysis of ethics teaching in Canadian physiotherapy and occupational therapy programs. *Disability and Rehabilitation*, 37(24), 2305-2311.

Lemonidou, C., Papathanassoglou, E., Giannakopoulou, M., Patiraki, E., & Papadatou, D.

(2004). Moral professional personhood: Ethical reflections during initial clinical encounters in nursing education. *Nursing Ethics*, 11(2), 122-137.

Lin, C-F., Lu, M-S., Chung, C-C., & Yang, C-M. (2010). A comparison of problem-based

learning and conventional teaching in nursing ethics education. *Nursing Ethics*, 17(3), 373-382.

Loncke, F. T., Dudding, C. C., & Kim, J. (2009). The use of online discussion forums for ethics

training. *Contemporary Issues in Communication Science and Disorders*, 36, 57-62.

Mantie-Kozlowski, A. (2013). Cognitive presence in ethics training: A comparison of online and

face-to-face learning communities. *Contemporary Issues in Communication Science and Disorders*, 40, 50-58.

McCarthy, M. P., Poole, M. L., & Solomon, B. (2010). Ethics: A model curriculum for teaching

professional issues in university speech-language pathology and audiology programs. *Perspectives on Administration and Supervision*, 20(1), 20-34.

Miyasaka, M., Sakai, S., & Yamanouchi, H. (2011). How should ethics be taught to medical,

nursing and other healthcare students? *Eubios Journal of Asian and International Bioethics*, 21, 91-95.

Naidoo, S., Turner, K. M., & McNeill, D. B. (2020). Ethics and interprofessional education: An

exploration across health professions education programs. *Journal of Interprofessional Care*, 34(6), 829-831.

- Park, M., Kjervik, D., Crandell, J., & Oermann, M. H. (2012). The relationship of ethics education to moral sensitivity and moral reasoning skills of nursing students. *Nursing Ethics, 19*(4), 568-580.
- Payne, K. T. (2011). Ethics of disability: Foundation of the profession of speech-language pathology. *Seminars in Speech and Language, 32*(4), 279-288.
- Persky, A. M., Lee, E., & Schlesselman, L. S. (2020). Perception of learning versus performance as outcome measures of educational research. *American Journal of Pharmaceutical Education, 84*(7), 993-1000.
- Pinar, G. & Peksoy, S. (2016). Simulation-based learning in healthcare ethics education. *Creative Education, 7*, 131-138.
- Pollard, C. L. (2015). What is the right thing to do: Use of a relational ethic framework to guide clinical decision-making. *International Journal of Caring Sciences, 8*(2), 362-368.
- Pollard, N., Nisbet, G., Kenny, B., Sheepway, L., Jacobson, J., Tartakover, E., Kilgour, A., & McAllister, L. (2018). Strategies for ethics education with health profession students before, during, and after placements. *International Journal of Practice-based Learning in Health and Social Care, 6*(2), 95-110.
- Portney, L. G. & Watkins, M. P. (2015). *Foundations of clinical research: Applications to practice (3<sup>rd</sup> ed.)*. F. A. Davis Company.
- Power-deFur, L. A. (2020). What do I do now? Resolving school-based ethical challenges. *Perspectives of the ASHA Special Interest Groups, 5*(1), 282-289.
- Rogers, W. A. (2004). Evidence based medicine and justice: A framework for looking at the impact of EBM upon vulnerable or disadvantaged groups. *Journal of Medical Ethics, 30*, 141-145.

- Russell, A. & Gunter, C. D. (2002). Professional ethics: An overview for student clinicians. *Perspectives on Administration and Supervision, 12*(2), 8-11.
- Russell, A. & Gunter, C. D. (2003). Ethics: The use of case studies in ethics education. *Perspectives on Administration and Supervision, 13*(2), 22-24.
- Ruyak, S., Wright, M., & Levi, A. (2017). Simulation to meet curricular needs in ethics. *Clinical Simulation in Nursing, 13*(3), 121-126.
- Sanders, S. & Hoffman, K. (2010). Ethics education in social work: Comparing outcomes of graduate social work students. *Journal of Social Work Education, 46*(1), 7-22.
- Shavell, S. (2002). Law versus morality as regulators of conduct. *American Law and Economics Review, 4*(2), 227-257.
- Smith, G., Minor, M., Brashen, H., & Remaly, K. (2017). Successful instructional leadership styles in education. *Journal of Instructional Research, 6*, 46-52.
- Steadman, R. H., Coates, W. C., Huang, Y. M., Matevosian, R., Larmon, B. R., McCullough, L., & Ariel, D. (2006). Simulation-based training is superior to problem-based learning for the acquisition of critical assessment and management skills. *Critical Care Medicine, 34*(1), 151-157.
- Steele, L. M., Mulhearn, T. J., Medeiros, K. E., Watts, L. L., Connelly, S., & Mumford, M. D. (2016). How do we know what works? A review and critique of current practices in ethics training evaluation. *Accountability in Research, 23*(6), 319-350.
- Stites, S. D., Rodriguez, S., Dudley, C., & Fiester, A. (2020). Medical students' exposure to ethics conflicts in clinical training: Implications for timing UME bioethics education. *HEC Forum, 32*, 85-97.

- Vanderkaay, S., Letts, L., Jung, B., & Moll, S. E. (2018). On-line ethics education for occupational therapy clinician-educators: A single-group pre-/post-test study. *Disability and Rehabilitation, 41*(23), 2841-2853.
- Veatch, R. M. (1995). Resolving conflicts among principles: Ranking, balancing, and specifying. *Kennedy Institute of Ethics Journal, 5*(3), 199-218.
- Williams, J., Hadjistavropoulos, T., Malloy, D. C., Gagnon, M., Sharpe, D., Fuchs-Lacelle, S. (2012). A mixed-methods investigation of the effects of ranking ethical principles on decision making: Implications for the Canadian code of ethics for psychologists. *Canadian Psychology, 53*(3), 204-216.



## Appendix A

### Ethics in Speech-Language Pathology

1. In relation to the code of ethics, beneficence means...
  - a. Acknowledging a patient's right to hold views, to make choices, and take actions based on their personal values and beliefs
  - b. Acting for the benefit of others
  - c. Not inflicting harm on others
  - d. Treating others fairly and being honest
2. In relation to the code of ethics, justice means...
  - a. Acknowledging a patient's right to hold views, to make choices, and take actions based on their personal values and beliefs
  - b. Acting for the benefit of others
  - c. Not inflicting harm on others
  - d. Treating others fairly and being honest
3. In relation to the code of ethics, non-maleficence means...
  - a. Acknowledging a patient's right to hold views, to make choices, and take actions based on their personal values and beliefs
  - b. Acting for the benefit of others
  - c. Not inflicting harm on others
  - d. Treating others fairly and being honest
4. In relation to the code of ethics, autonomy means...
  - a. Acknowledging a patient's right to hold views, to make choices, and take actions based on their personal values and beliefs
  - b. Acting for the benefit of others
  - c. Not inflicting harm on others
  - d. Treating others fairly and being honest
5. Ethics are...
  - a. Driven by morality
  - b. Driven by laws
  - c. Based on cultural or workplace norms and enforced on professionals
  - d. All of the above
  - e. A and C only
6. Legality is...
  - a. Driven by morality
  - b. Driven by laws
  - c. Bound by constitutional law, case law, state and local statutes
  - d. B and C only
  - e. A and C only
  - f. Yes, this is unethical and autonomy would be violated
7. You are an SLP working in a hospital setting and your uncle is admitted to that hospital with a possible cerebrovascular accident. Your aunt and cousins ask you to look into his

- medical record because they are concerned with the treatment he received upon admittance to the hospital. You are not included on his paperwork allowing access to his records by his family but because you are an employee at the hospital, you have access to any patient record in the system. Would this be an unethical scenario? If so, what ethical principles are potentially violated in this situation?
- a. No, this is not unethical because he is my family
  - b. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) would be violated
  - c. Yes, this is unethical and justice and non-maleficence would be violated
8. As a hospital-based SLP, you are short on time between sessions, so you decide to eliminate the infection control procedures between sessions. Would this be an unethical scenario? If so, what ethical principles are potentially violated in this situation?
- a. Yes, this is unethical and beneficence and non-maleficence would be violated
  - b. Yes, this is unethical and justice and non-maleficence would be violated
  - c. No, this is not unethical because I'm saving time
  - d. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) would be violated
9. As a graduate student extern, you have loved your most recent placement and the children that you have worked with. You really want to remember the 3-year-old pediatric client that you enjoyed treating. You take a photo with the child holding a craft they completed on their last day with you. The craft clearly has their room number and teacher's name on it. You post it to your social media page for your friends and family to see because you are so proud of your client and your work with her. Is this an unethical scenario? If so, what ethical principles are potentially violated in this situation?
- a. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) have been violated.
  - b. No, this is not unethical because I did not give any personally identifying details about the client.
  - c. Yes, this is unethical and justice was violated.
  - d. Yes, this is unethical and autonomy and non-maleficence was violated
10. A private practice SLP in your area recently advertised on their business social media pages that they have immediate openings for VitalStim intervention. You know that they just finished the training over the weekend and are now able to perform this treatment technique. Is this an unethical scenario? If so, what ethical principles are potentially violated in this situation?
- a. Yes, this is unethical and non-maleficence, beneficence, and justice would be violated.
  - b. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) have been violated.
  - c. Yes, this is unethical and autonomy has been violated.
  - d. No, this is not unethical because she has finished the training course prior to seeing clients for VitalStim

## Appendix B

### Ethics in Speech-Language Pathology

1. In relation to the code of ethics, an example of beneficence would be...
  - a. Allowing a patient to request a certain therapist
  - b. Completing annual continuing education related to speech-language pathology
  - c. Being honest in all communications with patients
  - d. Not engaging in conduct that reflects poorly on the profession
2. As a hospital-based SLP, you are short on time between sessions, so you decide to eliminate the infection control procedures between sessions. Would this be an unethical scenario? If so, what ethical principles are potentially violated in this situation?
  - a. Yes, this is unethical and beneficence and non-maleficence would be violated
  - b. Yes, this is unethical and justice and non-maleficence would be violated
  - c. No, this is not unethical because I'm saving time
  - d. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) would be violated
3. In relation to the code of ethics, an example of justice would be...
  - a. Allowing your patient to choose to participate in an intervention
  - b. Referring your patient to a neurologist for further evaluation
  - c. Receiving training for complex therapy techniques before implementing
  - d. Not misrepresenting your credentials
4. Ethics are...
  - a. Driven by morality
  - b. Driven by laws
  - c. Based on cultural or workplace norms and enforced on professionals
  - d. All of the above
  - e. A and C only
5. In relation to the code of ethics, an example of non-maleficence would be...
  - a. Cleaning any instruments between patients
  - b. Maintaining confidentiality of patient information
  - c. Getting consent from an individual before enrolling them in research
  - d. Not delegating a task that requires a unique skill to an aide
6. You are an SLP working in a hospital setting and your uncle is admitted to that hospital with a possible cerebrovascular accident. Your aunt and cousins ask you to look into his medical record because they are concerned with the treatment he received upon admittance to the hospital. You are not included on his paperwork allowing access to his records by his family but because you are an employee at the hospital, you have access to any patient record in the system. Would this be an unethical scenario? If so, what ethical principles are potentially violated in this situation?
  - a. No, this is not unethical because he is my family
  - b. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) would be violated

- c. Yes, this is unethical and justice and non-maleficence would be violated
7. In relation to the code of ethics, an example of autonomy would be...
- a. Not discriminating against minority patients
  - b. Maintaining requirements for the Certificate of Clinical Competence
  - c. Educating patients about potential risks of services
  - d. Not misrepresenting the intended purpose of a product
8. Legality is...
- a. Driven by morality
  - b. Driven by laws
  - c. Bound by constitutional law, case law, state and local statutes
  - d. B and C only
  - e. A and C only
9. A private practice SLP in your area recently advertised on their business social media pages that they have immediate openings for VitalStim intervention. You know that they just finished the training over the weekend and are now able to perform this treatment technique. Is this an unethical scenario? If so, what ethical principles are potentially violated in this situation?
- a. Yes, this is unethical and non-maleficence, beneficence, and justice would be violated.
  - b. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) have been violated.
  - c. Yes, this is unethical and autonomy has been violated.
  - d. No, this is not unethical because she has finished the training course prior to seeing clients for VitalStim.
10. As a graduate student extern, you have loved your most recent placement and the children that you have worked with. You really want to remember the 3-year-old pediatric client that you enjoyed treating. You take a photo with the child holding a craft they completed on their last day with you. The craft clearly has their room number and teacher's name on it. You post it to your social media page for your friends and family to see because you are so proud of your client and your work with her. Is this an unethical scenario? If so, what ethical principles are potentially violated in this situation?
- a. Yes, this is unethical and all 4 ethical principles (beneficence, non-maleficence, autonomy, and justice) have been violated.
  - b. No, this is not unethical because I did not give any personally identifying details about the client.
  - c. Yes, this is unethical and justice was violated.
  - d. Yes, this is unethical and autonomy and non-maleficence was violated.

## Appendix C

### Ethics Survey

1. Have you ever experienced an unethical situation that made you feel uncomfortable?
  - a. Yes
  - b. No
  - c. I don't know
2. Have you ever attended a course regarding ethics in speech-language pathology outside of Murray State University's curriculum?
  - a. Yes
  - b. No

These questions use the following Likert scale to respond:

1=I don't feel comfortable at all.

2=I feel minimally comfortable.

3=I feel somewhat comfortable.

4=I feel comfortable.

5=I feel very comfortable.

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| 3. How comfortable do you feel in identifying unethical scenarios when encountered?                    | 1 | 2 | 3 | 4 | 5 |
| 4. How comfortable to you feel in identifying illegal scenarios when encountered?                      | 1 | 2 | 3 | 4 | 5 |
| 5. How comfortable do you feel in making ethical decisions across topics in speech-language pathology? | 1 | 2 | 3 | 4 | 5 |

## Appendix D

### Formal Ethics Training Module

#### **Activity 1 – Discussion board (comprised of brief video lecture, ASHA resource, and discussion among peers):**

Watch the brief presentation about the ASHA Code of Ethics (2016). Using what you learn in the video as well as the attached ASHA Code of Ethics (2016), create a discussion post and state what ethical principles (beneficence, non-maleficence, justice, and autonomy) have been violated in the following scenario as well as what rules in the ASHA Code of Ethics (2016) have been violated.

**Make sure to comment on at least one other person's post.**

Ethical situation: You work at an outpatient clinic and you know that to maintain confidentiality of your clients, you must bring mom or dad into the therapy room with the door shut to discuss the day's session. Typically, it is difficult to transition your client out of the therapy room due to behavior. To save time, you decide to just discuss the client's progress and session in the waiting room where other clients/caregivers may hear the conversation.

#### **Activity 2 – Discussion board (comprised of brief video lecture and discussion among peers):**

Watch the provided presentation. Using what you learn in the video, answer the following questions in a discussion post:

If something is unethical, is it always illegal as well? Why or why not? Give an example of a situation in speech-language pathology that may be unethical but is legal.

**Comment on at least one other person's post.**

#### **Activity 3 – Discussion board (comprised of brief video lecture, ethical decision-making case study, and discussion among peers):**

Watch the provided presentation about ethical decision-making. In a discussion post, answer the following questions about the given ethical scenario. Use the ASHA Code of Ethics and previous videos to help you with this post.

Ethical situation:

Your supervisor tells you to make sure to bill a certain code even if you are treating the patient/client for something else because the company will be paid more for that code.

Answer the following questions:

What is the situation?

Who is involved?

What ethical codes, if any, are violated?

What ethical principles are at stake or in conflict with this situation?

What are the potential impacts on client care?

Who can I talk with about this?

**Activity 4 – Group assignment (comprised of ethical decision-making case study and discussion among peers)**

Using the People tab, you have been placed into groups of 3 and have been provided an ethical situation. For this assignment, as a group, you will present the ethical problem and your solution to the class as a PowerPoint or Google Slides presentation for discussion. In your presentation, you will need to describe the ethical problem, the rules of the code of ethics and bioethical principles that have been violated (if any). You will also describe at least one possible solution to the problem using the decision-making model in the previous discussion board.

You will present this problem and your solution to the class as a PowerPoint or Google Slides presentation for discussion.

## Appendix E

### Consent Form

**Identification of Researcher(s):** This research is being conducted by Dr. Jennifer N. Gaylord.

**Purpose of the Study:** The purpose of this study is to assess the efficacy of the current informal method of instruction for ethics in a graduate speech-language pathology program using content embedded in existing curriculum as compared to a more formal ethics training program.

**Request for Participation:** You are being invited to participate in a study to better understand the efficacy of the current method of instruction regarding ethics in speech-language pathology in this graduate curriculum at Murray State University. It is up to you whether you would like to participate. If you choose not to participate, you will not be penalized in any way. You can also decide to stop the survey or test at any time without penalty. As the survey and test are anonymous, the primary researcher will not be able to identify your individual results.

**Inclusions/Exclusions:** To participate, you must be a graduate student enrolled in CDI 624 during the fall 2021 or spring 2022 semester. You will be excluded from this study if you have received any formal ethics training that is external to the curriculum at Murray State University.

**Description of Research Method:** This study involves completing an ethics pre- and post-test and survey. The test and survey should take between 10-15 minutes to complete. This study also involves completion of an ethics training module on Canvas as a part of CDI 624 Assessment and Treatment of Voice Disorders. Participation or non-participation in this research will not impact your grade in any way.

**Privacy/Confidentiality:** You will be given a participant code upon consent to participate in the study. There is no threat to your identity and your confidentiality will be maintained from the primary researcher throughout the duration of the investigation.

**Explanation of Risks:** There are no foreseeable risks from participating in this study.

**Explanation of Benefits:** The main benefit of this study is increased knowledge and understanding of the most appropriate instructional methods for teaching ethics in speech-language pathology to graduate students. Participants in this study will potentially gain increased knowledge regarding ethical decision-making in speech-language pathology.

**Questions:** If you have any questions about this study, please contact Jennifer N. Gaylord at (270) 809-5622 or Stephanie Schaaf at (270) 809-3783. If you have questions about your rights as a research participant, please contact the Murray State IRB Office at (270) 809-2916 or email at [msu.irb@murraystate.edu](mailto:msu.irb@murraystate.edu)

**Please indicate your choice to participate in this study by selecting one of the following:**

**Yes, I do agree to participate.**      **No, I do not agree to participate.**

This project has been reviewed and approved by the Murray State University Institutional Review Board (IRB) for the Protection of Human Subjects. If you have any questions about your rights as a research participant, you should contact the MSU IRB Coordinator at (270) 809-2916 or [msu.irb@murraystate.edu](mailto:msu.irb@murraystate.edu).



## Appendix F

### IRB Approval Letter

TO: Stephanie Schaaf, Center for Communication Disorders

FROM: Jonathan Baskin, IRB Coordinator

DATE: 10/11/2021

RE: Human Subjects Protocol I.D. – IRB # 22-038

The IRB has completed its review of your student's Level 1 protocol entitled Formal Ethics Training for Graduate Students in Speech-Language Pathology. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

**The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.**

**Your stated data collection period is from 10/11/2021 to 10/10/2022.**

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

**This Level 1 approval is valid until 10/10/2022.**

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 10/10/2022. You must reapply for IRB approval by submitting a Project Update and Closure

form (available at [murraystate.edu/irb](http://murraystate.edu/irb)). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.