

Chapter 2 is a discussion and review of ethical issues in conducting and using research. An important question is this: Why study ethics and research? First, it is important that the researcher is aware of how ethical his or her procedures are in conducting research. There are federal laws that protect human subjects against potentially harmful research practices (Office for Human Research Protections [OHRP] of the U.S. Department of Health and Human Services). The specific regulations may be found in the U.S. federal code of regulation, 45 CFR 46 and the Common Rule: 45 CFR 46 subpart A. There is a relatively short history of human research protection starting in 1974, the National Research Act (Pub L. 93-348). The Belmont Report was published to clarify and summarize the act. Due to several high-profile research studies that resulted in harm to participants, Congress passed the act. Several of these research studies are discussed later in this chapter.

While protecting subjects and adhering to federal laws are most relevant for researchers conducting research, I will not go into great detail here because the focus of this book is designed to prepare you to be a thoughtful consumer of research. What difference does it make to consider ethical issues in the articles you read in the professional literature? The answers to these questions are the foci of this chapter.

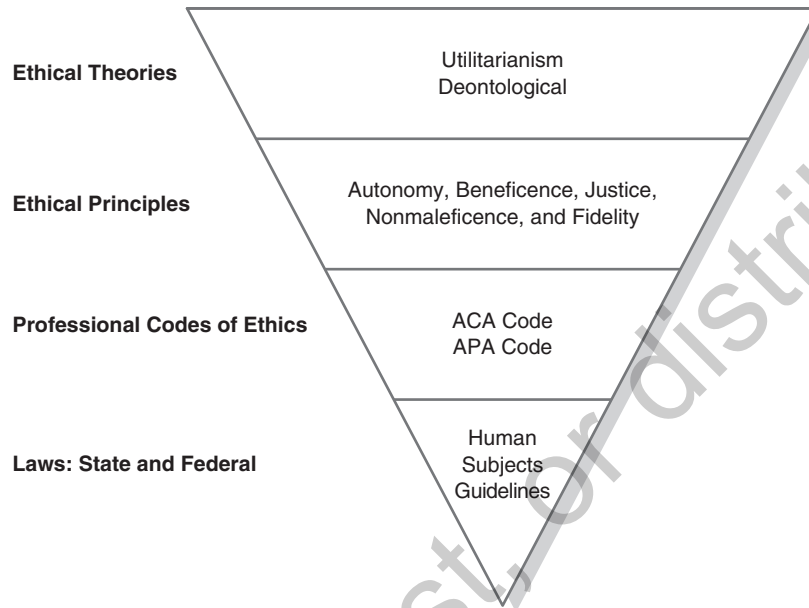
The purpose of this chapter is threefold: first, to introduce you to ethical guidelines helpful in understanding ethics and research; second, to discuss examples of ethical research violations; and third, more important for you as a practitioner, to provide a method of evaluating the ethics of a research design as ethics apply to your use in actual practice of the information from the research. Therefore, this chapter includes (a) discussion of basic principles that may be used to consider and understand ethics and research, (b) a foundation and set of criteria for evaluating research reported in the literature, with a particular focus on the ethics of the research design as the results apply to using the information in actual practice, and (c) a discussion of examples from the current literature, which will illustrate how to use the criteria presented earlier in evaluating research for violations and problems from an ethical perspective for the practitioner in counseling and education.

ETHICAL PRINCIPLES AND GUIDELINES

When one considers ethical issues in research, it is helpful to conceptualize the guidelines available in the form of an inverted triangle (see Figure 2.1). At the top of the inverted triangle are general theories of ethics, and you may think of the space in this segment

FIGURE 2.1

Ethical Guidelines for Research



of the triangle as representing the number of situations that can be addressed with the theories. Also, the space may represent the amount of ambiguity in decision-making because there is not the specific clarity that some of the other guides listed in the triangle provide. Next are general principles such as autonomy, nonmaleficence, and so on. These general principles allow for a somewhat clearer interpretation than the general theories but do not allow the same number of situations to be addressed. The third type of guide is the professional ethical code, such as that of the American Psychological Association (APA) or the American Counseling Association (ACA). (I did not include the National Education Association [NEA] codes because they do not address research.) As we move down the triangle with the codes of ethics, there is an increased clarity in how and when to use the guidelines and a decrease in the number of situations to which they can be applied. Finally, at the bottom of the triangle, are laws and federal or state statutes and regulations. These are the most specific and clear-cut guides for ethical decision-making, but they apply to (generally) the fewest situations and circumstances.

Starting at the top of the triangle, you can see that two major types of theories have been proposed in ethical decision-making: utilitarian ethics and a deontological view (Beauchamp & Childress, 2012). There are several other ethical theories that could be included in ethical decision-making (Houser & Thoma, 2012; Houser, Wilczenski, & Ham, 2006). However, this book is not solely focused on ethics, so I will cover these two broad theories (utilitarian and deontological). Federal regulations (OHRP) as well as

state and federal laws generally use these two ethical theories in developing their guidelines or laws. Beauchamp and Childress (2012) defined *utilitarian theory* in terms of the end justifying or legitimizing the means and the promotion of the greatest good for the greatest number of people. Ethical decision-making can be applied to a great number of situations, but how to proceed is not that clear. Beauchamp and Childress defined the deontological approach in terms of decisions about right and wrong. There are rules or principles of right and wrong. For example, one rule within this theory is the Golden Rule (treat others as you would like to be treated) that guides actions (Beauchamp & Childress, 2012). In this theory, the outcome is less important than following the rule or principle.

The next level of ethical guidelines is that of general principles, which are founded on virtue ethics (found within the deontological perspective). The general principles include autonomy, beneficence, nonmaleficence, justice, and fidelity (Beauchamp & Childress, 2012). According to Beauchamp and Childress, autonomy involves the concept of self-rule and self-choice. Self-choice includes full disclosure of information, which makes it possible to make an informed choice. Beneficence refers to doing what is best for another or looking out for another, whereas nonmaleficence is complementary to beneficence and concerns doing no intentional harm. Justice involves the fair distribution of resources. Finally, fidelity refers to keeping one's promise or commitment (Beauchamp & Childress, 2012). The next level of ethical guidelines is that of professional codes of ethics (ACA, 2014; APA, 2010). The ethical codes for the ACA address the following areas, under research: (a) research responsibilities of the counselor (Standard G.1), (b) rights of research participants (Standard G.2), (c) managing and maintaining boundaries (Standard G.3), (d) reporting results (Standard G.4), and (e) publications and presentations (Standard G.5). An example of rights of participants (Standard G.2) is as follows: The researcher needs to obtain **informed consent** for research purposes, and counselors must use language that is clear and understandable to participants. There are exceptions, when deception is required in a study, but deception is used only when no other methods are available. The APA (2003) Ethics Code Section 8 addresses (a) institutional approval (Standard 8.01), (b) informed consent for research (Standard 8.02), (c) Informed consent for recording voices and images in research (Standard 8.03), (d) client/patient, student, and subordinate research participants (Standard 8.04), (e) dispensing with informed consent for research (Standard 8.05), (f) offering inducements for research participation (Standard 8.06), (g) deception in research (Standard 8.07), (h) debriefing (Standard 8.08), (i) humane care and use of animals in research (Standard 8.09), (j) reporting research results (Standard 8.10), and (k) plagiarism (Standard 8.11). These topics in both the ACA and APA codes of ethics provide resources for practitioners who conduct or use research studies. You can review the relevant codes as necessary.

Finally, there are ethical guides that address specific procedures for the protection of human subjects (OHRP). Federal legislation (OHRP) requires that investigators who are associated with institutions that receive federal funds must submit their studies to an extensive review by peers before the studies can be conducted. The primary focus is on ensuring that adequate protections for research subjects are in place. The peer review is

done through a formally established institutional body, the Human Subjects Institutional Review Board (IRB). Guidelines for reviewing research proposals include requirements for informed consent, an evaluation of risks and benefits, and confidentiality. The IRB must evaluate the risks as being reasonable in relation to anticipated benefits.

Professional Association Standards for Research (American Counseling Association and National Education Association)

The 2014 ACA Code of Ethics includes a specific standard addressing research (Section G). The introduction to Section G states this: “Counselors who conduct research are encouraged to contribute to the knowledge-base of the profession and promote a clearer understanding of the conditions that lead to a healthy and more just society” (ACA, 2014, p. 15). In Chapter 1 in this text, there was a discussion of the role of research in developing knowledge, and this is reiterated in this professional code. Section G includes examples of standards that address how to conduct research, confidentiality of participants, consideration of research when procedures deviate from practice methods, precautions to avoid injury or harm to study participants, the use of informed consent with participants, appropriate dissemination of research records, and the reporting of results in a professional venue (journals and professional presentations). The standards in Section G of the ACA provide a detailed outline and guide for those who conduct counseling research. If you participate or conduct research in the future as a counselor, it is important and imperative that you review these professional codes of ethics prior to participating in or conducting research.

The NEA Code of Ethics (NEA, 1975) does not include specific standards addressing research on teaching. There are two sections in the professional code: standards addressing teachers’ commitment to students and standards involving commitment to the teaching profession. I would suggest teachers who conduct or participate in research in the future review other professional codes of ethics that address research to provide guidance, the ACA (2014) or the APA (2010; Amendments 2010 and 2017).

Professional codes of ethics provide guidelines for practitioners, and they are important to know and understand. Using codes of ethics provides protection for you as a practitioner and the people you serve and employ in conducting research. There are certain circumstances where a particular research issue is not clearly stated in a code of ethics (a new intervention, online counseling, is an example over the past few years), and in such cases, you can review and use general ethical theories: virtue ethics, utilitarian ethics, Native American ethics, etc. Also, it is important to consult with colleagues and others (administrators) about the implementation of your research to ensure ethical research practice.

ETHICAL RESEARCH VIOLATIONS

Ethical violations or scientific misconduct has been defined in several different ways, and at times there has been some disagreement on what constitutes scientific misconduct (Habermann, Broome, Pryor, & Ziner, 2010). The Office of Research Integrity

(ORI) of the U.S. Department of Health and Human Services monitors and sanctions scientists who engage in ethical violations or scientific misconduct. Habermann et al. (2010) noted that federal guidelines for defining scientific misconduct as “fabrication, falsification, and plagiarism, as well as other practices that deviate seriously from those commonly accepted within the scientific community” (p. 52). Redman and Merz (2008) reviewed the public records for outcomes and consequences for investigators that were found to have engaged in scientific misconduct. They identified 106 individuals over an 8-year period, 1994 to 2001, that were reported publicly by the ORI. These individuals include those with a PhD and/or MD. The scientific misconduct was identified as **data falsification** or **plagiarism**. Consequences for those engaging in scientific misconduct were found to be removal from grant funding opportunities and institutional oversight. Finally, some were required to correct scientific papers that included the falsified or plagiarized information.

A **random selection** of examples of misconduct from the ORI provides insight into how decisions and outcomes are applied. One example, reported by the ORI, states that a researcher was found to have engaged in research misconduct by falsifying and/or fabricating data. The data was discovered to be falsified and/or fabricated in several National Institutes of Health (NIH), National Institute of Child Health and Human Development, or National Institute on Aging grants. A consequence of the findings was a recommendation that all publications resulting from the falsified and/or fabricated studies be retracted, a notification in the journal that the study is retracted. Six publications were identified for retraction. Additionally, the researcher voluntarily agreed to exclude himself from contracting or subcontracting with any federal grant for a period of three years.

A second case of misconduct reported by the ORI again involved falsifying data that was included in a grant application and in a publication in a research journal. The intention of the falsification was to show greater significance than actually found. The consequence for the researcher who again signed a voluntary settlement agreement included requiring the researcher to be supervised by any institution that receives public health service grant funding. Additionally, if the researcher submits a grant application, the institution who employs her must include a supervision plan to ensure scientific integrity. One can see from a review of these two examples of scientific misconduct that in fact there are consequences for researchers who engage in such practices.

The findings by the ORI have been challenged in court; ORI concluded that a biochemistry professor engaged in scientific misconduct. The researcher took the case to a federal court. The judge found in favor of ORI findings, and the consequences against the researcher were upheld.

GUIDELINES AND QUESTIONS FOR EVALUATING THE RESEARCH LITERATURE FOR ETHICAL CONCERNS

As has been shown, there are several approaches and guides for interpreting ethical issues in counseling and education research, but which methods are most useful for you as a consumer of research? The answer must be based on the focus and purpose you have.

Researchers are most concerned with the protection of the human subjects used in their studies; therefore, the federal guidelines and professional codes addressing the protection of human subjects are most relevant. However, consumers of research are interested in the ethics of research that focuses on interpreting results, and the applications for those for whom they provide services in the practice of their professions.

Gostin (1991) suggested guidelines to consider when conducting and applying research to populations (“population research”). He defined *population research* as “all research and practice, performed on, or which affects groups of people or populations” (p. 192). Gostin (1991) linked the application of ethical principles to populations and stated the following:

Ethical principles applied to larger groups of people or populations are designed to protect the human dignity, integrity, self determination, confidentiality, rights, and health of populations and the people comprising them. The kinds of social groupings encompassed in this definition include communities, cultures, social orders, and other minorities. (p. 191)

The key terms here are protecting the *human dignity, integrity, self-determination, confidentiality, rights, and health of populations*. The concern for practitioners providing counseling and educational services is that research results must be interpreted and implemented based on ethical guides that protect the populations we serve. Several of the previous ethical guides are pertinent to understanding and interpreting counseling research. The ethical principle of nonmaleficence states, “Do no harm.” Do no harm can be interpreted in regard to population research based on the results and conclusions from research studies as to whether the outcomes harm the welfare of the populations studied. A key component of nonmaleficence and “do no harm” is an awareness and intention of knowingly acting in a way that may harm others. As Gostin (1991) stated, this means protecting the dignity, integrity, and health of the populations. Neither the APA nor the ACA includes ethical codes that specifically address population research ethics. The focus of professional codes has been on the ethical treatment of research participants and not so much on the ethics of population research. A question that consumers of research want to ask in reviewing research is this: What negative implications or harm is possible, based on the results from a particular study on the population of interest? Harm may include, as Gostin (1991) noted, an effect on the population’s dignity, rights, integrity, and/or self-esteem.

A second ethical consideration in regard to population research can be found in the general ethical principle of beneficence. The question here is this: What are the possible benefits of the research results for the population? In our professional capacity, we are most concerned with research results that will be useful to those receiving counseling and educational services. A review of a research study and how it may be applied in practice may be evaluated from the perspective of this: What are the benefits if I use the reported study interventions with the population I serve? You would not want to try an intervention that provided no benefit to those you serve. You have an obligation to provide quality services.

A third ethical guide that is applicable to population research is justice and the fair distribution of research outcomes. A question based on this ethical principle is this: Is the **sample** and **population** studied fairly representative of the general population that could benefit from the research results? More specifically, did the researcher or researchers present a reasonably clear argument for studying the population if the research was restricted to a particular group? We cannot expect that a researcher will be able to study every possible group because of cost and time, but the exclusion of certain groups from the benefit of research results may bring the ethics of a study into question. For example, the NIH, which in part funds medical research, has historically approved mostly studies involving White males, to the general exclusion of women. Fortunately, this issue of justice and fairness in funding medical research has changed over the past several years, and NIH now *requires* researchers to justify the sole use of males in a study (NIH, 1994).

A restatement of the questions that consumers of counseling and education research might ask to determine the ethical quality of research published in professional journals could include the following:

1. Are there possible negative implications, potential harm, if applied to a population (a practitioners' intended clients or students) due to the results of a particular study?
2. What are the possible benefits of the research results for the population (if applied to practitioners' intended clients or students)?
3. Is the sample and population studied fairly representative of the general population that could benefit from the research results? More specifically, did the researcher or researchers present a clear argument for studying the population if the study was restricted to a particular group?

EVALUATION OF RESEARCH EXAMPLES PRESENTED IN THE PROFESSIONAL LITERATURE

There have been studies that were conducted and involved ethical violations, and these studies serve as illustrations of the significance of the impact they have on populations. I want to review several examples: the Tuskegee Syphilis Study and the Milgram study. Next, I want to review some more current examples that provide illustrations of how a population may be impacted through certain research.

TUSKEGEE SYPHILIS STUDY

The Tuskegee Syphilis Study was intended to follow the natural course of syphilis, specifically in African American males. The study spanned 40 years, beginning in 1932 and ending in 1972. It was originally hypothesized that there were differences by race in the natural progression of syphilis (Thomas & Quinn, 1991). However, a Norwegian study

that focused on White males essentially provided information of the natural course of syphilis without treatment. However, the researchers wanted to believe they would find a difference due to race. The study was designed to last for 6 to 9 months and was conducted in Macon, Alabama. The Alabama state health officer solicited assurance from the U.S. Public Health Service (PHS) that participants would eventually receive treatment (Thomas & Quinn, 1991). However, the participants in this study never received treatment, even though treatment was available as early as 1943, when the PHS began administering penicillin as a treatment for syphilis across the country. One reason given for not providing treatment was that of the attitudes of the officials who were overseeing the study. For example, Dr. John Heller, director of the PHS Division of Venereal Diseases, stated that “the men’s status did not warrant ethical debate, they were subjects not patients, clinical material, not sick people” (Jones, 1981, p. 179). This statement demonstrates a bias toward viewing participants as not having rights and/or a perception that these particular subjects, African American males, are not worthy of rights.

The Tuskegee study ended in 1972 when it became public that these men had had standard, effective medical treatment withheld. Numerous other reasons were cited for the treatment these men received, and many centered on the attitudes of the medical community toward those of different races, particularly African Americans (Gamble, 1993; Thomas & Quinn, 1991). For example, Gamble (1993) stated that certain assumptions about African Americans led to the unethical treatment of subjects in this study, such as beliefs that African Americans are promiscuous, lustful, and generally do not seek out medical treatment. Consequently, not providing medical treatment was justified in the minds of the study officials. It has been estimated that 28 to 100 of the participants died as a consequence of their untreated syphilis (Gamble, 1993).

The first question is to address concerns whether there are any negative implications based on the way the study was conducted and the results obtained for the population. Gamble (1993) described a legacy of mistrust among African Americans toward medical research: “The Tuskegee Syphilis Study symbolizes for many African Americans the racism that pervades American institutions including the medical profession” (p. 37). Thomas and Quinn (1991) suggested that the Tuskegee Syphilis Study has resulted in such distrust of the medical profession that it hampers acquired immunodeficiency syndrome (AIDS) education and acceptance of treatment among African Americans. Mason (2006) stated, “Historically, African Americans have resisted participation in clinical trials and other research projects because of distrust of the mostly white research establishment” (p. 296). It would not be a stretch to conclude that the effects of this study have had a negative impact on the population of the study, African American males, and their attitudes toward seeking medical treatment.

Are there any potential benefits from this study for the population? It is difficult to identify any. I am not aware of any special knowledge gained from the results that has benefited the treatment practices for syphilis in African American males. Recall the study of the progress of syphilis in adult males was conducted years earlier with a Norwegian population. One of the few benefits may be broader in that the exposure of Tuskegee Syphilis Study to Congress resulted in improved oversight of human subject research by the federal government.

The third question to address ethically is this: Is there a clear argument for using this particular population for the study? Initially, there was speculation in the medical literature on racial differences in the natural course of syphilis (Thomas & Quinn, 1991), but there was no attempt to compare the target group with other racial groups, such as White males. Gamble (1993) has noted that African Americans historically have been considered by the medical and scientific community to be inferior and, consequently, good sources for medical experimentation. Gamble (1993) cited physicians' use of Black women for medical experimentation during the late 1800s prior to the use of treatments for White women.

In summary, it appears that the Tuskegee Syphilis Study is of questionable ethical quality when population research is considered. There appear to be no benefits to the population—in this case, African American males—from the study; in fact, the study appears to have harmed the population—for example, distrusting the medical profession and not seeking necessary medical treatment.

MILGRAM STUDY

A classic study in psychology that has received significant criticism over violations of ethics is the Milgram study on obedience (Baumrind, 1964; Kelman 1967; Milgram, 1963). Milgram (1974) described the aim of the study as this: “to find when and how people would defy authority in the face of a clear moral imperative” (pp. 3–4). The methods involved the use of deception with the subject. Subjects were led to believe by the experimenter that they were participating in a learning study. Subjects were requested to train or teach another through the systematic use of electrical shock. In reality, the learner was an actor who did not actually receive a shock. The “teacher” in this experiment (the actual subject) was instructed to administer an electrical shock whenever the learner responded with an incorrect answer. With each incorrect answer, the teacher was informed that he should increase the intensity of the shock. The electrical shocks were presented on a board to the teacher, starting at 15 volts and rising to 450 volts at 14-volt intervals. Also, there were designations on the shock board indicating slight shock to “danger: severe shock” (Milgram, 1963). Milgram (1974) described his experiments with obedience in the following way:

The man receiving the shock, begins to indicate he is experiencing discomfort. At 75 volts, the “learner” grunts. At 120 volts he complains verbally; at 150 he demands to be released from the experiment. His protests continue as the shock escalate, growing increasingly vehement and emotional. At 285 volts his response can only be described as an agonized scream. (p. 4)

When the teacher (subject) expressed reluctance at continuing with the experiment, the investigator urged him to complete the study and administer up to the maximum shock in the severe **range** (Milgram, 1963).

Milgram (1963) noted the behavior of subjects (teachers) wherein several of the initial study's participants exhibited unusual reactions: “nervous laughter and smiling. . .

Full-blown, uncontrollable seizures were observed in 3 subjects” (p. 375). Additionally, Milgram described in detail one subject’s reaction: “initially [this subject was a] poised businessman . . . smiling and confident. Within 20 minutes he was reduced to a twitching, stuttering wreck, who was rapidly approaching a point of nervous collapse” (p. 377).

A key consideration in evaluating this study from a consumer’s perspective is the use of deception. To answer the first question of harm to the population, I want to cite studies on the use of deception. Sharpe, Adair, and Roese (1992) found that subjects participating in psychological research expressed more negative views of psychological research after participation. Studies like Milgram’s may contribute to mistrust in participating in psychological research or may influence participation in future research. Conversely, it is difficult to find more concrete negative effects on the population as a consequence of these results and research methods being published. The APA (2003) Ethics Code states the following:

Deception in Research (a) Psychologists do not conduct a study involving deception unless they have determined that the use of deceptive techniques is justified by the study’s significant prospective scientific, educational, or applied value and that effective nondeceptive alternative procedures are not feasible. (APA Code 8.07)

A possible benefit to the population is an understanding and realization of the vulnerability of humans in reacting to and complying with authority. Milgram’s initial interest in studying obedience centered on compliance with authority and participation in aggressive acts, like those conducted by some Germans during World War II. These results may provide insights into why humans may engage in horrendous acts against others, and, consequently, prevention measures may be developed.

The sample studied was obtained from workers, or community members, in the New Haven, Connecticut, area and generally involved males. The use of the specific subjects in the study was not clearly defended in the introduction. What effect would it have had on the results to have included subjects not affiliated with a university? However, there does not seem to have been bias toward a particular group.

Overall, the Milgram study provides somewhat mixed results for ethical violations affecting the population. The study may more likely have violated the rights of participants than affected the intended population of the study.

Additional Examples of Ethics in Research Studies

To illustrate the practical application of ethics and counseling and educational research literature, there are additional examples of application from several studies to address these three questions. Correll et al. (2007) conducted a study comparing law enforcement officers in Denver, Colorado, to a community sample—undergraduate college students—in making high-threat decisions on whether to shoot or not to shoot. The study focused on the participant’s decision to shoot or not to shoot based on race;

they compared decisions to shoot a White or Black community member. The law enforcement officers were faster in making correct decisions of whether to shoot or not to shoot. Also, they generally set a higher standard for decision-making compared to the community, or college students. Community members, or college students, were quicker to shoot those who were Black. However, both groups set a higher standard in making decisions to shoot or not to shoot White “suspects.” An analysis of the ethics and population research may be applied to this study. The first question is whether there is any overall harm to the population, or law enforcement officers. The study outcome showed that officers set a higher standard to decisions to shoot or not to shoot White suspects. This was similar to the general population; however, we as a society expect law enforcement to show less bias. The study results may have a negative impact on law enforcement reputation. The second question is whether there are any benefits to the population based on the results for law enforcement officers. The findings that officers were better in making correct decisions to shoot or not to shoot minority suspects—in this case individuals who were Black—provides positive information about their skills. The last question is whether the population studied is representative of those that can benefit. The researcher did use only one city, Denver, in the study. It may be beneficial to study officers from rural areas or suburban areas. Overall, Correll et al. show mixed results in analyzing population ethics. The officers may be harmed by the findings that they set a higher bar or standard for White suspects. The findings that the officers were better at making correct decisions to shoot or not to shoot Black suspects is positive. Finally, it would be beneficial to study officers from different geographic regions, including those from rural and suburban areas.

Pandiani, Banks, and Schacht (2001) conducted a study addressing the effects of various children’s services on outcomes like incarceration, hospitalization, and pregnancy among young adults. Participants over 17 were receiving one of three services: special education, child protection and juvenile justice, and mental health services. The researchers found that those young males who received either child protection and juvenile justice and special education services had higher incarceration rates than those receiving mental health services and those not having involvement with any of the identified services. Also, those females who received state child protection and juvenile justice services had higher rates of pregnancy than those receiving mental health services or special education. This was a longitudinal study and thus had information on the long-term effects of services on the outcomes of young adults. These findings allow for an interpretation of the impact on the population, or a review of ethics for population research.

The first question is whether there is any possible harm to the population. In the study presented here, the population is those receiving state child services such as special education, mental health services, or child protection or juvenile justice. What potential impact do the study results have on the reputation or dignity of the population? The results suggest that those males receiving special education and child protection and juvenile justice are more likely to be involved with the criminal justice system. One might interpret that someone going through these systems is more inclined to engage in criminal activities.

The benefit of the results from this study for the population is that such an at-risk group can be systematically addressed. Interventions can be focused on this population in an effort to change the outcomes of incarceration or pregnancy. Participants were primarily White and from a specific region—the New England area; the results do not provide information on other populations, such as those from other racial groups.

In another study, Blanton and Dagenais (2007) investigated whether those with language skills deficits had more incidents of criminal behavior and court involvement compared to those who did not have language skills deficits. They included males and females who were either court involved or not court involved. Also, they categorized them as having language impairments or not. The authors provided a review of the literature, which noted that language acquisition is a critical issue during preschool years and the development of language. The authors found that language problems in children predicted later male criminal activity. The first question to address ethically is whether these results have a negative impact on or harm the population: young males with language problems. Certainly if an educator working with young males read these article results, he or she would need to carefully understand the implications and that not every male with a language disorder is going to engage in criminal activity as he gets older. The ethical use and interpretation of these results is that young males with language disorders are more likely to engage in criminal activities in later life, but it is not an absolute, and these students should not be treated differently—for example, not be trusted, because they may engage in criminal behavior in the future. The potential positive use of the outcomes from this study is that educators and school personnel could target interventions to help young males—first with their language disorders and secondly to develop interventions to address possible future criminal behavior and encourage prosocial behavior. The study was conducted in Alabama, and only Caucasian and African American youth were included. Latino, Asian, Native American, and other racial groups could potentially benefit from being studied in this area.

SUMMARY

As a consumer of research, it is important to consider ethical principles in interpreting and applying study results from population research. Three ethical principles seem particularly relevant: nonmaleficence, beneficence, and justice. Nonmaleficence concerns determining whether the results of a study, when interpreted and implemented, may harm the population. This includes how those interpreting the results use the results.

Beneficence is almost diametrically opposed to nonmaleficence and concerns whether study results benefit a population when implemented and made public. Researchers have the intention of finding results that benefit others—particularly in counseling and education. However, those using research results need to consider the benefits and how they can best be applied in practice. Finally, justice concerns the extent to which study results may be applied to all those in the population of interest—and not just a select group.

A review of public records shows that researchers do engage in scientific misconduct, and there are consequences. Consequences may include a ban on submission

of proposals to federal grants and institutional monitoring of scientific activity. Both represent significant impact on a researcher's activities and career. A review of examples of how to evaluate current research as it applies to population research show that even today there can be significant impact on those being studied. Researchers and those applying research in practice should be aware of how research results can negatively impact a population.

APPLICATION OF POPULATION ETHICS TO NATIONAL ACCREDITATION: COUNCIL FOR ACCREDITATION OF COUNSELING AND RELATED EDUCATIONAL PROGRAMS AND COUNCIL FOR THE ACCREDITATION OF EDUCATOR PREPARATION

Council for Accreditation of Counseling and Related Educational Programs

The Council for Accreditation of Counseling and Related Educational Programs (CACREP) standards Section 2: Professional Counseling Identity, Counseling Curriculum, Item F8: Research and Program Evaluation (a) states that “the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice.” The key in this standard is demonstrating the knowledge and skill to critique research; in this chapter, we can infer it involves evaluating articles through the perspective of population ethics. Section 2: Professional Counseling Identity, Counseling Curriculum, Item F8: Research and Program Evaluation (j) “ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation.” Many issues in regards to population ethics concern diversity. Demonstration of the knowledge and skill to interpret research results, population research, is important for counseling students. Educational programs must demonstrate how they are assessing the candidates' (or students') acquisition of the knowledge and skills. Typically, this is accomplished through course requirements, performance on national exams, and other assessment methods—for example, portfolios.

Council for the Accreditation of Educator Preparation

The Council for the Accreditation of Educator Preparation (CAEP) standards also address the relevance of research for teachers. Standard 1: Content and Pedagogical Knowledge, Provider Responsibilities 1.2 states this: “Providers ensure that candidates use research and evidence to develop an understanding of the teaching profession and use both to measure their P–12 students' progress and their own professional practice” (*providers* refers to training institutions; *candidates* refers to students in the teacher preparation programs). Similar to counseling programs, providers, or training institutions, must demonstrate how knowledge and skill assessed in the interpretation of research results and evidence, population research, is important for teacher preparation students.

Educational programs must demonstrate how they are assessing the candidates' (or students') acquisition of the knowledge and skills. This is accomplished through course requirements, performance on national exams, and other assessment methods—for example, portfolios.

EXERCISES AND ACTIVITIES

Directions: Locate an article in the professional literature addressing a topic you are interested in exploring. Evaluate ethics and population research based on the questions addressed in this chapter. Try to explain and justify your answers based on specific examples from the article.

1. What are some possible negative implications that could be applied to the population or harm that could come to it from the results of your chosen study?
2. What are the possible benefits of the research results for the population?
3. Is the sample and population studied fairly representative of the general population that could benefit from the research results? More specifically, did the researcher or researchers present a reasonably clear argument for studying the population if the study was restricted to a particular group?