# Teaching Research Integrity in the Field of Counseling

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Little has been done in terms of teaching or writing about research integrity or research ethics in the counseling field. Because of the continual push for research in counseling to maintain evidence-based practices, there is a need for education in the area of research integrity in order for professionals in the counseling field to conduct responsible research. The Office of Research Integrity's 9 areas of responsible conduct of research and the American Counseling Association's code of ethics on research are presented, along with a discussion of ways to teach ethics and provide resources for research integrity in counselor education.

Research integrity has received substantial attention in the biomedical sciences. High-profile cases of research misconduct over the past 20 years have resulted in lost jobs, damaged reputations of prominent scientists, lawsuits against universities, and debarment and/or exclusion from future funding or the ability to serve in advisory capacities to grant organizations (Office of Research Integrity, 2005, 2006). Personal characteristics (e.g., psychological disorders, stress management) and situational factors (e.g., competitive sparring to gain resources, generating grant funding, the pressure to publish, health or family problems, financial difficulties) have been found to be some of the possible causes of research misconduct (Alberts & Shine, 1994; Davis, Riske, & Seaman, 2001; Hatcher, 2005; Woolf, 1981). Eventually, incidents of research misconduct led to administrative regulations designed to promote integrity in research. Institutions receiving research funding from the National Institutes of Health (NIH) consequently are required to address the responsible conduct of research (RCR) not only by notifying the Office of Research Integrity (ORI; affiliated with the U.S. Department of Health and Human Services) of alleged RCR violations but also by undertaking educational efforts to acquaint researchers with appropriate standards of research conduct.

*Research integrity,* by definition, is the "adherence to rules, regulations, guidelines, and commonly accepted professional codes or norms" (ORI, "Areas of Interest," ¶1, 2003) or "possessing and steadfastly adhering to high moral principles and professional standards [in the area of research]" (Steneck, 2006, p. 55). Just as research in other areas, such as the biomedical sciences, has been faced with an examination of its integrity, the integrity of research in the counseling field should also be examined. Research within the field of counseling

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typically deals with human participants, including clients undergoing mental and emotional distress or experiencing a trauma, crisis, or severe mental health disorder. Thus, at times, counseling clients may be at risk because of researchers' conflicts of interest between client care and outcomes of research, dual relationships (e.g., researcher and counselor), as well as the possibility of releasing confidential client information to accurately report results. In addition to research misconduct or questionable research practices (QRPs, defined as departing from the acceptable practice of the relevant research community; Steneck, 2003) occurring with clients, other transgressions can include—but are not limited to—data fabrication, plagiarism, lack of responsibility of the principal investigator, inappropriate authorship, reporting of inaccurate results, or falsifying data.

Although research misconduct and QRPs of counseling professionals have not been reported publicly or been listed on the ORI's misconduct cases Web page (ORI, 2006), it is possible that irresponsible conduct of research exists. Because of the possible serious consequences that research misconduct could have on others (research participants and clients) and on the counseling field, it is time to take proactive, preemptive action designed to prevent inappropriate research practices. The purpose of this article is to provide ways in which counselor educators can bring research ethics into the classroom for counselors-in-training—teaching them to become ethical researchers in their future careers as counselors or educators.

## Research in the Field of Counseling

There has been increased skepticism from society, the general public, government, and consumers about the provision of services, programs, and education in the counseling field for which no positive results or success have been demonstrated (Houser, 1998). Houser declared that "we [as a profession] can attempt to ignore the criticisms or we can attempt to address them in the practice of our profession" (p. 230). Because of the increased skepticism and the need for effective clinical treatment, there continues to be a drive in the field of counseling to provide evidence-based service. This drive has, and continues to, lead counseling professionals, including clinical practitioners, counselor educators, and graduate students (at both the master's and doctoral level), to engage in research focused on data that supports, or disputes, their services.

In light of the need for continued evidence-based practice, the Council for Accreditation of Counseling and Related Educational Programs (CACREP; 2001) indicated that research and program evaluation must be included in CACREP-accredited counselor education programs as part of the core curriculum. CACREP indicated that this course must emphasize the importance of research; provide an overview of research methods; and discuss opportunities and difficulties in conducting research in counseling, the use

of statistical methods, technology, the use of research to improve counseling effectiveness, and ethical and legal considerations in conducting research.

Although there is a push to continue conducting research in order to provide evidence-based service, and CACREP (2001) has indicated that a basic understanding of research methods and ethics is required, Whiston (1996) noted that, in general, counselors are not trained to demonstrate accountability in the provision of their services. According to Houser (1998), this is due, in part, to the lack of training in the area of evaluation and research. However, not only is there a lack of training in research methodology for master's students (Houser, 1998) but also it is unknown whether research integrity is taught within counselor education at all (i.e., in master's or doctoral curricula).

The lack of education in research integrity is not only just a problem in counseling but also is a problem across most fields within the university setting. Through the use of a national survey of social and biomedical science departments, Anderson, Louis, and Earle (1994) surveyed 1,261 doctoral students from 73 departments. They found that 77% of doctoral students reported that their departments were not very active, if active at all, in preparing students to recognize or deal with ethical issues in research in their field. Langlais (2006) reported on another study that found that although 71% of full-time faculty in all areas (arts and sciences, business, engineering, fine arts, and health and human services) indicated they "regularly" to "sometimes" discussed research ethics with graduate students, 80% of graduate students indicated that their department did not provide training on research ethics—informally or otherwise.

Although research integrity and other ethical research issues are not actively or frequently incorporated into educational programs, they may be even less common within the field of counseling. Although 2 decades ago, Welfel and Lipsitz (1983) advocated for educators to incorporate research integrity into graduate counselor education programs, and even more recently the American Counseling Association (ACA; 2005) addressed professional behavior in various research activities, there is still a scarcity of discussion on research integrity in the counseling literature, including what it is and how to teach it. For example, the majority of publications that include anything related to counseling ethics focus on ethics in regards to clinical practice (e.g., Corey, Corey, & Callanan, 2003; Garcia, Cartwright, Winston, & Borzuchowska, 2003; Schwiebert, Myers, & Dice, 2000; Welfel & Lipsitz, 1983), with little to no focus on research ethics or integrity.

With the research activity that has occurred, and needs to continue, in the counseling profession in order to provide evidence-based practice, it is imperative that the profession take proactive measures to train current and future professionals to engage in honest and reliable research prior to any cases of research misconduct or QRPs occurring. Welfel and Lipsitz (1983) reported that "an examination of the data-based studies of the ethical behaviors of counselors and

psychotherapists reveals that much of it has focused on documenting the incidence of unethical practice" (p. 323) instead of focusing on the education and training of behaviors that uphold integrity in the clinical and research aspects of the counseling profession.

According to Steneck (2003), very little has been done to examine the prevalence of research misconduct within the social and behavioral sciences. This does not mean, however, that research misconduct, or the lack of integrity, do not exist. Even though larger cases of research misconduct have not been announced within the field of counseling, Steneck (2003) suggested that in the broader research community, occurrences of QRPs (e.g., statistical errors, improper authorship, duplicate publications) range from around 10% to 40%. He reported that each case of a QRP runs counter to well-established rules designated by a specific professional community (e.g., ACA), which ultimately compromises research integrity.

Davis, Wester, and King (in press) specifically examined QRPs among a sample of 189 professionals in the field of counseling. Of this sample, almost half were counselor educators teaching at universities (45%), 31% were current master's or doctoral students in a counselor education program, with the remainder being practicing clinicians, supervisors, or retired. Each participant was provided with vignettes that described a scenario related to research integrity (e.g., authorship, data management and collection, informed consent). Davis et al. found between 2% to 23% of the counseling professionals self-reported the likelihood that they would engage in behaviors that exemplify QRPs. In addition to Davis et al.'s study, ACA's ethics committee reported that approximately 1% of their informal inquiries have been about research and publication (e.g., Brown & Espina, 2000; Kocet & Freeman, 2005; Sanders & Freeman, 2003). Although larger, public cases of research misconduct have not appeared in the counseling profession, the combination of Davis et al.'s study and ACA's ethics committee reports reveal that, at minimum, QRPs exist within the field of counseling.

Thus, knowing that the drive for evidence-based practice will continue to increase the need for research, and that QRPs exist, the profession as a whole needs to take a more proactive approach in promoting research integrity. Robinson and Gross (1986) suggested, "Regardless of the research domain, ethical issues such as informed consent, confidentiality and privacy, . . . manipulation, deception, participants' right to treatment, and honesty in reporting results need to be considered" (p. 333). They suggested that educating students, practitioners, and counselor educators about the counseling profession's ethical codes is a safeguard that must occur. This education needs to include both counseling/clinical practice and research ethics.

Although Robinson and Gross (1986) suggested this 2 decades ago, research integrity has yet to be fully incorporated into the counseling literature, educational tools, and textbooks. One possible reason for the lack of attention to research integrity in the literature, and possibly in the classroom, is the lack of attention paid to teaching and training students in this area.

As stated earlier, research integrity is the adherence to professional policies, regulations, and suggestions on how to conduct honest, accurate, and methodical research from the inception of a research idea to the publication and presentation of a study (ORI, 2003; Steneck, 2006). *Ethics,* on the other hand, is defined as the "study or science of right and wrong—of what one ought to do when confronted with conflicting values or obligations" (Steneck, 2003, p. S240). Through the teaching of research ethics in an individual's profession, as well as discussing how these ethics relate to RCR, individuals can be educated on research integrity. According to the Institute of Medicine (2002), it is important for "research institutions, accrediting agencies, and public and private organizations that fund or otherwise support research" to "collaborate to establish and ensure the integrity of the scientific research enterprise" (p. 14). Thus, counselor education programs need to incorporate the training of research ethics, along with RCR, into core classes on professional ethics, such as professional orientation or research and program evaluation.

There is no agreed upon method of how to teach research integrity and ethics that will result in RCR. There is some consensus, however, regarding the objectives of teaching research integrity. For example, Roth (2002) reported that the main five instructional objectives should include knowledge, attitudes, skills, behavior, and community. Specifically, Roth reported that when teaching research integrity, one of the main objectives should be to increase students' knowledge of research ethics and RCR. Increasing knowledge includes having students understand ACA's research ethical codes, ORI's principles for RCR, and other information that helps to answer "what" questions (e.g., What are the rights of the client?). Knowledge also includes understanding the process for dealing with research misconduct. For example, at what point in time is a formal complaint to the ACA ethical board required, when should a student contact ORI, or what is the first step in the process of inquiry?

A second objective, according to Roth (2002), considers shifts in students' attitudes. Roth defined *attitude* as "acceptance and an understanding of the value of acting in ways which foster responsible conduct" (Attitudes: Background section) of research. Attitudes relate to the student's opinions and beliefs about what is important in research, what ethical situations are, as well as how to resolve them. Roth indicated that attitudes include the student's understanding of the importance of research integrity and the impact minor QRPs can have on clients and the profession, as well as a feeling of personal responsibility for one's own research practice.

Gaining knowledge and positive attitudes about research integrity should result in changes in skills and behavior. Roth (2002) defined *skills* as when a student has the ability to recognize an ethical problem in research. For example, the student acknowledges when a client may not have the ability to provide informed consent because of a

developmental disability or language difficulty (e.g., cannot read the consent form provided in English) or when a conflict of interest arises between the researcher and the school district in the publication of the study's results. Once a student has the adequate knowledge and attitudes, combined with the skills to recognize an ethical dilemma, he or she should engage in the appropriate ethical behavior. Examples of altered behaviors would include students taking appropriate action and engaging in RCR when faced with an ethical dilemma, as well as using ethical principles when confronted with an ethical dilemma that cannot clearly be defined as ethical or unethical. Behaviors would also include taking an active role in keeping current with policy changes, including modifications to the profession's research ethical codes or amendments to ORI's RCR.

Finally, the fifth objective in teaching research integrity is the aspect of community. Roth (2002) indicated that community includes those outside of the researchers working on a particular project. Although the other four objectives necessitate students changing their own behaviors, the objective of community includes having students build relationships with other researchers, human participants, and the profession as a whole. This includes students understanding the relationship between research and society (e.g., individuals who will consume the research, other professionals who will engage in the practices suggested to be effective based on outcomes of the research).

Although Roth (2002) provided five objectives in teaching research integrity, ORI (2000) has specified nine domains of RCR that should be incorporated into instruction. These domains include data acquisition and management, mentor/trainee responsibilities, publication practices, peer review, collaborative science, human subjects, research involving animals, research misconduct, and conflict of interest. Each of the domains, and their descriptions, are listed in Table 1. When training counseling students in RCR, instructors should discuss ORI's RCR domains and the counseling profession's ethics on research, especially those found in the 2005 *ACA Code of Ethics.* Table 1 shows the overlap between ORI's RCR areas and ACA's ethical codes for research.

For the most part, the counseling profession's ethical codes for research adequately cover ORI's (2000) RCR domains. Specifically, ACA (2005) has multiple ethical codes related to eight of the nine areas (the one RCR area not covered in the ACA ethical codes is research involving animals). Thus, the counseling profession has been active in providing guidelines for research integrity; it is now the responsibility of counselor educators to bring the connection between the field's ethical codes and RCR into the classroom to generate responsible researchers.

### *Methods of Teaching Research Integrity*

Evaluating the usefulness of various educational tools in teaching research integrity, 86% of a nationwide sample of 150 educators (across a number of professions) reported seminars to be useful, closely

## TABLE 1

## Office of Resource Integrity's (2000) Nine Core Instructional Areas of Responsible Conduct of Research and the Links to Research and Publication in the 2005 *ACA Code of Ethics*

| ORI's Core Instructional Areas of Responsible Conduct of Research | Description of ORI's Core Areas[a] | *ACA Code of Ethics* Section G: Research and Publication |
|---|---|---|
| 1. Data acquisition, management, sharing, and ownership | Practices for obtaining, storing, and sharing research data | G.1.e. Principal Researcher Responsibility<br>G.1.g. Multicultural/ Diversity Considerations in Research<br>G.2.e. Confidentiality of Information<br>G.2.j. Disposal of Research Documents and Records<br>G.4.d. Identity of Participants<br>G.4.e. Replication Studies |
| 2. Mentor/trainee relationships | Duties of instructor or supervisor and students or supervisees in a research endeavor | G.5.e. Agreement of Contributors<br>G.5.f. Student Research |
| 3. Publication practices and responsible authorship | Author responsibilities in the publication process | G.4.a. Accurate Results<br>G.4.b. Obligation to Report Unfavorable Results<br>G.4.c. Reporting Errors<br>G.5.a. Recognizing Contributors<br>G.5.b. Plagiarism<br>G.5.c. Review/Republication of Data or Ideas<br>G.5.d. Contributors<br>G.5.e. Agreement of Contributors<br>G.5.f. Student Research<br>G.5.g. Duplicate Submission |
| 4. Peer review | Responsibilities of a reviewer in the process of peer review | G.5.h. Professional Review |
| 5. Collaborative science | Collaboration in a research endeavor | G.2.i. Informing Sponsors<br>G.5.e. Agreement of Contributors |
| 6. Human subjects | Issues pertaining to the inclusion of human subjects in research | G.1.a. Use of Human Research Participants<br>G.1.b. Deviation From Standard Practice<br>G.1.c. Independent Researchers<br>G.1.d. Precautions to Avoid Injury<br>G.1.e. Principal Researcher Responsibility<br>G.1.f. Minimal Interference<br>G.1.g. Multicultural/Diversity Considerations in Research |

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**TABLE 1 *(Continued)***

**Office of Resource Integrity's (2000) Nine Core Instructional Areas of Responsible Conduct of Research and the Links to Research and Publication in the 2005 *ACA Code of Ethics***

| ORI's Core Instructional Areas of Responsible Conduct of Research | Description of ORI's Core Areas[a] | *ACA Code of Ethics* Section G: Research and Publication |
|---|---|---|
| 6. Human subjects *(Continued)* | Issues pertaining to the inclusion of human subjects in research *(Continued)* | G.2.a. Informed Consent in Research<br>G.2.b. Deception<br>G.2.c. Student/Supervisee Participation<br>G.2.d. Client Participation<br>G.2.e. Confidentiality of Information<br>G.2.f. Persons Not Capable of Giving Informed Consent<br>G.2.g. Commitments to Participants<br>G.2.h. Explanations After Data Collection<br>G.2.j. Disposal of Research Documents and Records<br>G.3.a. Nonprofessional Relationships<br>G.3.b. Relationships With Research Participants<br>G.3.c. Sexual Harassment and Research Participants<br>G.3.d. Potentially Beneficial Interactions |
| 7. Research involving animals | Issues pertaining to the inclusion of animals in research | NA |
| 8. Research misconduct | Research misconduct and responses | G.4.a. Accurate Results<br>G.5.b. Plagiarism<br>G.5.g. Duplicate Submission |
| 9. Conflict of interest and commitment | Types of conflicts of interest and responses | G.2.i. Informing Sponsors<br>G.3.d. Potentially Beneficial Interactions |

*Note.* ACA = American Counseling Association; ORI = Office of Research Integrity.
[a]Paraphrased and summarized from ORI's (2000) "PHS [Public Health and Science] Policy on Instruction in the Responsible Conduct of Research (RCR)-Suspended."

followed by Web-based modules and courses (85%) and interactive CD-ROMs (63%; CHPS Consulting, 2001). In this same study, 82.4% of 108 educators reported providing instruction in RCR through case study discussions, indicating that case studies were one of the most useful resources in teaching research integrity.

Other researchers have found similar results when examining basic ethics training courses. Bebeau and Thoma (1994) and Self,

Olivarez, and Baldwin (1998) found that students whose ethics training included case-based discussions in small-group settings scored higher on tests of ethical thinking skills. Chen (2003) agreed, reporting that in psychiatric research ethics training, case-based learning was the most effective for teaching practical thinking skills such as ethical reasoning.

Thus, using case-based studies that provide examples of actual case scenarios that students may encounter in their professional lives may be a helpful approach to teaching research ethics. A few resources currently exist that may assist educators with this daunting task. One resource that can be considered in teaching the basic nine areas of RCR can be found online on the ORI Web site (see Steneck, n.d.). Steneck discussed each of the nine RCR areas separately while including basic written case studies that do not necessarily offer a "right" answer, but require a student to think about and process the research ethical decision in a particular situation. In addition to Steneck's suggestions and case studies, the Responsible Conduct of Research Education Consortium (2004) has provided online resources for instructors, such as the Web site provided by the Ethics in Mental Health Research (EMHR; n.d.).

EMHR (n.d.) designed a Web-based module specifically for professionals in mental health fields that includes various case study vignettes in mental health that are specific to research situations. The written vignettes cover ethical issues in research that range from conducting research with special populations, using deception, and the ability of a research participant or client to give informed consent to assessing the risks inherent in the study for participants. Each written vignette is provided online, with specific questions requiring students to apply research ethical codes and the core areas of RCR.

Another case-based resource for counselor educators teaching RCR, *Conducting Research Responsibly: Cases for Counseling Professionals* (Wester, 2005), is available. Wester designed an interactive DVD specifically for practitioners, students, and educators in the field of counseling that combines the nine domains of ORI's RCR with both the National Board for Certified Counselors (NBCC; 2002) and the ACA (2005) ethical codes for research. The interactive DVD includes 11 case vignettes that cover research scenarios set in university, agency, and school settings as well as research ethical issues spanning data collection and management, informed consent, voluntary participation, collaborative research, mentoring in the area of research, the responsibilities of the principal investigator, and publication authorship and review.

Thus, through examples from training manuals and research, one effective method of teaching research integrity in the field of counseling appears to be the use of case studies that allow a student, or professional, to think through a situation that might actually occur. In setting up a case study, an instructor should include questions that allow the student to think about the ethical decisions that the

researcher has to make (or has already made) concerning various aspects of the study. Specifically, instructors could ask questions regarding the rights of the participant, as well as any other person, agency, or organization that might be affected in the research vignette; the implications of the results if the study is conducted unethically; conflicts of interest that may arise; biases that may be occurring in the study or in an article review; and the aspects related to actual data collection, management, and publication. The ORI's nine areas for RCR, ACA or NBCC's ethical codes, and Roth's (2002) five teaching objectives may become a guide instructors can use in designing follow-up questions to the case studies students are asked to consider.

For example, an instructor might pose a vignette about a student who is conducting research at their internship site regarding the effectiveness of implementing a new treatment method. After setting up the specific vignette, the instructor might ask the student questions such as the following: As a client, what might you want to know if you were asked to participate in this study? What might be the concerns of the agency? Will the client's rights be violated by this study? If anything goes wrong in the study, who is liable—the agency, the university, the faculty adviser, or the student who is the principal investigator? What implications might the study have for the client and his or her treatment? When the study is completed and getting ready to be published, who should be the authors? For example, should the sole author be the student, or should the faculty adviser and staff at the agency be included?

The goal of the follow-up questions provided by the instructor would be to create a situation in which the student begins to ethically consider the specific situations presented. In addition, the questions should assist the student in becoming familiar with the profession's research ethical codes and becoming knowledgeable about ORI's nine RCR areas, as well as increase the student's attitudes, behaviors, and skills in ethical decision making in research. Although a few questions might have specific right or wrong answers (e.g., Will the client's rights be violated by this study?), not all ethical questions are as quickly or clearly answered. An example of one of these questions could be the following: If anything goes wrong in the study, who is liable—the agency, the university, the faculty adviser, or the student who is the principal investigator? The answer, typically regardless of the study, would be the principal investigator of the study. However, all individuals who have approved, or are involved in, the study are liable. This includes the faculty adviser who has possibly assisted in the design of the study and has more than likely signed off on the Institutional Review Board paperwork, the university and the Institutional Review Board, and the agency in which the client is being seen. If more than one researcher is involved in the study, has access to human participants, or participated in the design of the study, each is ultimately responsible.

Another example of a thought-provoking question might be the following: As a client, what might you want to know if you were asked to participate in this study? This question might help to create a situation in which the student has to consider the study from the perspective of the rights of the client, possible positive and negative outcomes, and the implications for the client's clinical treatment. Case vignettes should include situations from the designing stages of the research project through data collection and publication.

## Discussion

Case vignettes might help to provide real-life examples of research situations that will allow master's and doctoral students to begin developing their skills, attitudes, and behaviors related to research integrity. While contemplating case vignettes, they can explore the RCR and research ethical codes to assist in their decision making. Once they gain knowledge related to ethical decision making and have a good understanding of research integrity, it will be easier for them to begin to enhance their skills and implement ethical decision making in their research.

It is time that counselors, as a profession and as educators, begin to proactively promote research ethics and integrity in the counseling field by training students and current professionals in conducting research in a responsible manner. The goal should not only be to ensure that QRPs and research misconduct in our field are minimized but also, more important, that counseling research participants and clients are protected.

Teaching research integrity can be done many ways, including with the use of case vignettes. Regardless of the method one uses to teach research integrity and RCR, counselor educators may want to keep in mind that successful teaching of research integrity might result in students increasing their ethical abilities across Roth's (2002) five main instructional objectives (i.e., knowledge, attitudes, behavior, skills, and community) by considering possible dilemmas in a situation, not only in the designing stages of the research process but also throughout data collection and publication. In addition, examining the immediate impact of various methods on students' ethical behavior in research, as well as considering which methods are more effective in their long-term RCR as educators or practitioners, would be important to examine.

Finally, researchers also need to begin to examine the reasons for QRPs in the field of counseling. Specifically, what causes counseling professionals to sway from the RCR? If such causes can be determined, counselor educators can begin to address them in trainings or discussions with students in an attempt to be proactive at minimizing or eliminating QRPs. A proactive approach in teaching research ethics and integrity will help create an ethical research community within the counseling profession, including educators, students, and counselors.

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