

Academic Dishonesty and Unprofessional Behavior

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Purpose *To investigate differences in radiologic science student and faculty perceptions of academic dishonesty and unprofessional behavior.*

Methods *Radiologic science faculty and students were questioned about their perceptions of academic dishonesty and unprofessional behavior using ethical scenarios in an electronic survey format.*

Results *Significant differences occurred between faculty and student values regarding the seriousness of cheating and unprofessional behaviors. Faculty viewed cheating and unprofessional behaviors as more serious than students. Faculty and student self-reports of cheating behavior demonstrated no significant differences; however, significant differences existed in self-reported incidences of unprofessional behavior.*

Conclusion *Faculty and students differed in their values and participation related to cheating and unprofessional behaviors. Efforts should be directed toward bridging the gap between faculty and student perceptions.*

Radiologic science faculty, in their role as educators and consumers of health care, are greatly concerned with issues of academic integrity and, subsequently, the professional conduct of their students as future health care providers. However, despite efforts to prevent cheating in the academic arena, it still occurs with some regularity.¹⁻³ After experiencing several instances of cheating among students in the radiologic sciences and nursing programs at 1 institution, faculty wondered whether students who cheated in their coursework would, likewise, behave unethically in the professional setting. One hallmark of a profession is self-monitoring. A profession “functions autonomously in control of professional policy and activity and functions within a code of ethics,”⁴ thus indicating the responsibility to perform at a high level of integrity. “Without integrity and trust, the value of an education is greatly decreased and the reputation of the institution is tarnished.”⁵

A recent study of radiography students and faculty suggested that dishonesty, particularly academic dishonesty, is alive and well and remains an enduring concern among faculty in college programs.⁶ As faculty deal with the issues and ramifications of cheating

among their students, the question of whether academic cheating is associated with unprofessional behavior in the practice setting also becomes a concern. Furthermore, it seems there is a discrepancy between faculty and student values concerning cheating and unprofessionalism. Thus, the purpose of this study was to investigate differences in radiologic science student and faculty perceptions of academic dishonesty and unprofessional behavior. The following questions guided this study:

- What are the differences in radiologic science student and faculty perceptions of seriousness regarding cheating and unprofessionalism?
- What are the differences in radiologic science student and faculty behaviors regarding cheating and unprofessionalism?

Literature Review

Prevalence

There is little doubt that academic dishonesty is rampant in institutions of higher education in the United States and, in fact, it is on the rise.¹⁻³ Research has estimated that as many as 75% of students enrolled in such institutions have reported cheating.¹ Alarmingly, Johnson and Martin reported that 95% of

cheating students had never been caught.⁷ This fact is especially disturbing because research has positively linked unethical classroom behaviors to unethical clinical behavior — a grave concern for faculty.^{6,8,9}

Similarly, incidences of unethical conduct are increasing in the clinical and professional arenas. In 2009, more than 2500 ethics violations were investigated by the American Registry of Radiologic Technologists. Examples of such violations included “misrepresentation of ARRT credentials ... falsification of quality control logs ... non-disclosure of convictions ... performing procedures without an order from a licensed physician ... HIPPA violations.”¹⁰ In addition, 15% of violations were alcohol related.

Unethical conduct, including academic dishonesty and unprofessional behavior, is a threat to the integrity of the student, the faculty, the university, the facility, and the profession. All stakeholders become victims when academic dishonesty and unprofessional behavior are allowed to perpetuate. However, the ultimate victim of any unethical academic or clinical behavior is the patient and that should be foremost in everyone’s thoughts.

What Constitutes Academic Dishonesty?

What constitutes academic dishonesty is the subject of much discussion and publication.¹¹⁻¹⁴ Definitions of academic dishonesty are replete in the literature and range from “a wide range of unacceptable behaviors”¹¹ to “intentional acts or an intentional act of fraud.”¹⁵ No single universal definition of academic dishonesty exists. Even faculty, students, programs, and universities may disagree as to what academic dishonesty is and what it is not.¹⁶⁻¹⁸ A recent article suggested that the line between what is cheating and what is not has blurred, particularly in light of “electronic empowerment.”¹⁹ What faculty consider cheating, students may consider simply using their resources.¹⁷ “The ethics of cheating is very situational for many students.”²⁰

Implications for Faculty

Reporting suspected academic dishonesty requires courage and is burdensome for faculty. Faculty expose themselves to potential lawsuits, verbal abuse, and possible violence.²¹ A study of 72 educators in a large public university reported that only 12 of the educators filed academic dishonesty formal charges at the department level; 8 of the faculty reported issues to student services for resolution.²² When describing their experiences related to handling suspected cases

of academic dishonesty, faculty reported a lack of administrative support or lack of functional academic policy that resulted in a negative experience.²³

Methods

Research Design

The data for this study were obtained from a larger study that examined academic honesty and professional behaviors of radiologic science and nursing students and faculty. The study used a descriptive, correlational design involving the administration of a 2-part survey tool that was designed to assess student and faculty perceptions regarding academic dishonesty and unprofessional behavior. The survey was adapted with consent from Austin, Collins, Remillard, Kelcher, and Chui²⁴ and permission to conduct the study was granted by the Northwestern State University Institutional Review Board.

Sample

A database was constructed of program directors from the Joint Review Committee on Education in Radiologic Technology, the Joint Review Committee on Educational Programs in Nuclear Medicine Technology, and the Commission on Accreditation of Allied Health Education Programs. Program directors from programatically accredited radiography, radiation therapy, medical dosimetry, magnetic resonance imaging, nuclear medicine, and sonography programs were included. After the radiologic science programs were added, a search for nursing programs at those same institutions was conducted. The sample used for data collection consisted of only those institutions that had a radiologic science discipline and a nursing program. Survey invitations were e-mailed to 504 radiologic science (342 radiography, 77 sonography, 40 radiation therapy, 33 nuclear medicine, 8 dosimetry, and 4 magnetic resonance imaging) and 504 nursing program directors throughout the United States, for a total of 1008 survey invitations. Programs from 45 states were included in the sample.

Instrument

The 2-part survey used for this study was piloted with approximately 300 students in early 2009.^{6,25} The first portion of the survey comprised the demographic data obtained from each participant. The second part was a scenario-based questionnaire that included 18 situations related to cheating and 6 circumstances related to professionalism (see Box). Each scenario had 4 questions to which participants were asked to respond:

Box**Cheating Scenarios**

1. During an exam, a student goes to the bathroom and, while he is there, looks at some notes that have been previously hidden in order to find answers.
2. A student writes some notes on her arm or hand before going into an exam and uses these to help answer some questions.
3. As a memory prompt, a student writes some abbreviations, codes, or mnemonics on his hand or arm before going into an exam.
4. A student is having difficulty writing an imaging lab report. She borrows an imaging lab report from her friend and uses it to gain ideas for her own report, but does not copy it directly.
5. A student is having difficulty writing an imaging lab report. He photocopies the work of a friend, then uses parts of this work to write his own report, **without** the knowledge of his friend.
6. A student is having difficulty writing a paper. She photocopies the work of a friend and then uses part of this work directly to write her own paper, **with** the permission of her friend.
7. A student is having difficulty in a radiologic sciences positioning lab. He is scheduled in the second or third section of the lab. Prior to attending the positioning lab, he asks his friend to describe the procedures and positions used in the lab.
8. A student has completed a course exam. In an effort to help her friends, she describes the specific content on the exam.
9. A student has completed an exam. When asked by a friend to describe the content, the student provides information about general topics **only**, not specific details about the content.
10. A student finds an Internet site relevant to her work. She cuts and pastes portions of it into her own work, changing very little of it. She does not use quotation marks, but lists the name of the website in her references.
11. A student is writing a difficult paper for a course. He takes several quotes directly from a journal, textbook, or another source, without using quotation marks, and does not reference them.
12. Following a chemistry or biology laboratory that produces no useful results, a student makes up some data for his write-up.
13. A student is completing a major course project. She does not understand some of the instructions, so she asks her neighbor for help in clarifying.
14. A student uses exams, papers, and lab reports handed down from previous years to complete her assignments.
15. A student is very lenient and assigns a higher grade than deserved to his friend during a peer-assessment exercise.
16. A student presents a misleading or false medical excuse or gives other fabricated reasons to gain an extension on an assignment or to avoid taking a test.
17. A student gives old lab books, tests, and assignments to another student in a lower year taking those courses.
18. A student continually skips classes for no valid reason. She borrows notes and handouts from other students to photocopy and keep for her own studying.

Professionalism Scenarios

19. A student in clinical is allowed 30 minutes for his lunch break, but takes 45 minutes.
20. A student is required to wear surgery scrubs into the operating room. She wears the scrubs home and decides not to return them to the hospital.
21. When starting an IV, a student breaks sterile technique by accidentally touching the end of the IV catheter. No one but the student notices, so he decides to continue with starting the IV without changing to a new catheter.
22. A student needs to run errands for an upcoming party. He calls the clinical instructor and says he has a sore throat and won't be able to come to the hospital for clinical that day.
23. A student sees a technologist verbally abusing a patient but the student does not report the incident to anyone.
24. A student's ex-boyfriend was seen in the emergency department the night before clinical. At clinical the next day, the student reviews the ex-boyfriend's medical record.

- Is it cheating/unprofessional behavior? (cheating/professional values)
- If it is, how severe is it?
- Have you done it? (cheating/unprofessional behaviors)
- Have your peers done it?

Respondents were asked to indicate what they thought or believed about particular actions. Respondents' interpretations were influenced by many factors, such as past experiences, parents, peers, instructors, and numerous other influences. This provided a personal perspective that is labeled "values" for purposes of this study.

Values scores for cheating/unprofessional behavior were derived from student and faculty responses as to whether the scenario depicted cheating or unprofessionalism and, if so, how serious they were (no = 0; yes, not serious = 1; yes, somewhat serious = 2; yes, very serious = 3; and yes, extremely serious = 4). A summed values score was tabulated for the 18 scenarios depicting cheating, the 6 scenarios representing unprofessional behavior, and for all 24 scenarios. The cheating behaviors and unprofessional behaviors scores were determined from student and faculty responses (yes = 1, no = 0) to whether or not they had participated in the activity described in the scenarios. A summed behavior score was created for the 18 scenarios depicting cheating, the 6 scenarios depicting unprofessional behavior, and for all 24 scenarios. During the pilot study, the analysis of the reliability yielded a Cronbach alpha of 0.542 for the cheating values scale, $\alpha = 0.725$ for the cheating behaviors scales, $\alpha = 0.644$ for the professional values scale, and $\alpha = 0.576$ for the professional behaviors scale.^{6,25}

Data Collection and Analysis

Data collection was accomplished by an online survey using Zoomerang (San Francisco, California). The survey was e-mailed to program directors from the radiologic science and nursing programs included in the sample. Program directors were provided with a link to the survey and asked to complete the survey themselves and to share the link with other educators in their programs. In addition, a link to a student version of the survey was provided to the program directors. Again, the program directors were asked to share the link with their students. Data were collected in March 2010. After data collection was complete, data analysis was conducted by a statistician using SAS. Descriptive statistics and *t* tests were used in the analysis.

Results

Participants

There were 217 radiologic science faculty and 210 radiologic science students who participated in the survey. Faculty participants were 29% ($n = 62$) male, 71% ($n = 153$) female, and less than 1% ($n = 2$) no response. They ranged in age from 21 to 69 years ($M = 49$ years). Students were 20% ($n = 41$) male, 80% ($n = 168$) female, and less than 1% ($n = 1$) no response. They ranged in age from 18 to 56 years ($M = 28$ years). Among the faculty, 17% ($n = 37$) indicated that they had cheated in high school and 11% ($n = 23$) had cheated in college. Among students, 26% ($n = 54$) responded that they had cheated in high school and 11% ($n = 23$) had cheated in college. Faculty and students represented several disciplines and specialties within the radiologic sciences (see Table 1).

Reliability

Reliability analysis yielded a Cronbach alpha of 0.869 for the cheating values scale, $\alpha = 0.740$ for the cheating behaviors scales, $\alpha = 0.735$ for the professional values scale, $\alpha = 0.455$ for the professional behaviors scale, and $\alpha = 0.887$ for all scales.

Values

A total values score was tabulated for faculty and for students. A higher score suggested the scenarios were viewed as more serious instances of cheating and unprofessionalism, whereas a lower score suggested the participant's perception of the scenarios was less serious. A *t* test and effect sizes were conducted on the total values scores for all scenarios (1-24), the scenarios depicting cheating (1-18), and the scenarios depicting unprofessionalism (19-24). Table 2 shows the results of the *t* tests and effect sizes conducted for the values scores. Effect size is a measure used to assess the practical significance of results.²⁶

The *t* test for total values revealed a significant difference ($t[425] = 4.82, P < .001$) between radiologic science faculty ($M = 65.01, SD = 10.84$) and students ($M = 59.41, SD = 13.19$). This indicated that faculty viewed the scenarios as overall more serious instances of cheating than students. Similar results were obtained for the cheating scenarios values scores ($t[425] = 4.88, P < .001$). Again, this showed that faculty ($M = 46.06, SD = 9.02$) evaluated the scenarios as more serious than students ($M = 41.41, SD = 10.77$). The effect size for the total values ($d = 0.468$) and cheating values ($d = 0.473$) is moderate, indicating

Table 1
Survey Participants by Radiologic Science Discipline or Specialty

Discipline	Faculty (n = 217)	Students (n = 210)
	No. (%)	No. (%)
Radiography	168 (78)	166 (79)
Sonography	23 (11)	10 (5)
Nuclear medicine	13 (6)	11 (5)
Radiation therapy/ dosimetry	11 (5)	5 (2)
Magnetic resonance imaging	1 (<1)	10 (5)
No response	1 (<1)	8 (4)

practical significance as well as statistical significance. Although there was still a significant difference in regard to the professional values scores ($t[425] = 3.13$, $P = .002$), the faculty ($M = 18.94$, $SD = 2.71$) and students ($M = 18.00$, $SD = 3.35$) had less difference in their scores. This is confirmed by the small effect size ($d = 0.304$).

Behaviors

A total behaviors score was calculated for faculty and for students. A higher score would indicate more participation in the scenarios depicted, whereas a lower score would demonstrate less participation in the activities described in the scenarios. A t test and effect sizes were conducted on the total behaviors scores for all scenarios (1-24), the scenarios depicting cheating (1-18), and the scenarios depicting unprofessionalism (19-24).

Table 3 shows the results of the t tests and effect sizes conducted for the behavior scores.

The t test for total behaviors scores ($t[425] = 1.66$, $P = .097$) and cheating behaviors scores ($t[425] = -0.59$, $P = .56$) were not significantly different for radiologic science faculty and students. This indicates that faculty and students had similar behaviors in terms of having participated in cheating activities. However, in terms of participation in unprofessional activities depicted in the scenarios, there was a significant difference in regard to the unprofessional behaviors scores ($t[425] = 7.86$, $P < .001$). The faculty ($M = 0.876$, $SD = 1.104$) had more instances of participation in unprofessional activities described than students ($M = 0.601$, $SD = 7.86$). The effect size value for professional behaviors was $d = 0.763$, which is considered large. Table 4 shows the number of faculty and students who participated in each of the unprofessional behaviors. The most frequent area of participation for both groups was taking a longer lunch break than was scheduled.

Discussion

Educators regularly face the problem of academic dishonesty. Much of the research conducted so far has focused on the prevalence of academic dishonesty and the reasons students choose to cheat. This study

Table 2
Faculty vs Student Values Scores

Factor	Faculty		Students		$t(425)$	P	d
	M	SD	M	SD			
Total values	65.01	10.84	59.41	13.19	4.82	<.001	0.468
Cheating values	46.06	9.02	41.41	10.77	4.88	<.001	0.473
Professional values	18.94	2.71	18.00	3.35	3.13	.002	0.304

Table 3
Faculty vs Student Behavior Scores

Factor	Faculty		Students		$t(425)$	P	d
	M	SD	M	SD			
Total behavior scores	3.30	2.58	2.85	2.69	1.66	.097	0.161
Cheating behavior scores	2.42	1.99	2.56	2.43	-0.59	.56	-0.057
Professional behavior scores	0.876	1.104	0.291	0.601	7.86	<.001	0.763

**Table 4
Faculty and Students Participating in Unprofessional Behaviors**

Scenario	Faculty (n = 217)	Students (n = 210)
	No. (%)	No. (%)
Taking an extended lunch break	66 (30)	35 (17)
Stealing hospital scrubs	64 (29)	13 (6)
Breaking sterile technique for an IV and not starting over	5 (2)	1 (<1)
Calling in sick to plan for a party	25 (12)	10 (5)
Not reporting verbal abuse of a patient by a health care worker	11 (5)	1 (<1)
Reviewing medical records of an ex-boyfriend	18 (8)	1 (<1)

behavior. Faculty reported participating in a significantly higher number of unprofessional behaviors than students — about 3 times as many. Admittedly, this was a bit surprising at first glance. Some of the unprofessional behaviors most frequently reported by faculty included taking an extended lunch break and stealing hospital

had a different focus and investigated the relationship between radiologic science faculty and student values and behaviors regarding cheating and unprofessional behaviors. In all instances, faculty and student perceptions were significantly different.

Faculty consistently viewed occurrences of academic cheating and unprofessional behaviors as more serious than students. One would anticipate that faculty would have a particular aversion to academic dishonesty given their academic careers and understanding of the critical need for academic rigor in health care majors. Although students may have viewed activities as cheating or unprofessional misconduct, they did not consider them serious and thus may have a different focus. They may have minimized cheating because their main goal is academic success at any cost. The results of this study support these assumptions.

Faculty and student self-reports of cheating behavior demonstrated no appreciable differences in scores. This is an interesting finding because educators often think that today's students participate in academic cheating more than those in the past. The results of this study demonstrate that faculty and students had similar patterns of participation in cheating despite the fact that these 2 groups represented different generations. This finding is contrary to previous studies that suggested student academic cheating is on the rise.¹⁻³ Another explanation for the similarity of student and faculty participation in cheating may be that there is little difference in those who gravitate to the helping professions and those who have been in the discipline for some length of time.

Significant differences existed between faculty and student self-reported incidences of unprofessional

scrubs (see Table 4). Upon closer examination, this difference may be attributable to faculty having had a professional career and thus more opportunity and time on the job to engage in unprofessional misconduct. Other mitigating factors could include a cultural shift in health care and society because of patient rights and consumer advocacy.

Limitations

Limitations of the study included a small sample size (N = 427) and the fact that the data were collected using self-report, thus the integrity of the data may be biased. Likewise, those faculty and students who chose to participate in the study may not necessarily be representative of radiologic science faculty and students in general. Because of the data collection methods used for this study, there is no way to determine which program directors and which students chose to respond to the survey. Therefore, the actual return rate could not be ascertained because the number invited to participate was not known.

Implications for Practice

An important and perhaps often overlooked key for faculty to consider is ensuring that students clearly understand what constitutes academic dishonesty and unprofessional behavior for each course, if not for the entire program. In addition, faculty must place greater emphasis on professional ethics and conduct in both the educational setting and workplace, remembering they are the students' first and often most important professional role model. Faculty should be strong advocates of personal and professional integrity and

help students understand the importance of honesty and integrity for themselves, the profession, and the patient. Finally, program directors should ensure that faculty are aware of and abiding by federal and professional regulations and institutional policies that govern the practice setting. If faculty fail in this regard, program directors must take swift action to remedy the deficits.

Strategies to promote open dialogue between faculty and students should be explored. Each group should be afforded the opportunity to define what it believes constitutes academic dishonesty and unprofessional behavior, as well as the rationale for those beliefs. This discourse will allow both groups to see the other's point of view and perhaps come to some common points of understanding. Faculty can help students realize the implications and consequences for particular behaviors.

Recommendations for Future Research

Academic honesty is a topic that could be explored using multiple other methods. For example, other studies should be conducted to determine what methods might discourage cheating among students. Additionally, studies in a clinical setting where student reactions and behaviors could be observed would provide valuable information on actual responses to unprofessional or cheating situations.

Conclusion

The findings of this study highlight a difference in values related to cheating and unprofessional behavior between radiologic science faculty and students. Faculty tended to view academic cheating and unprofessional behaviors more harshly than students did. It is important that educators consider this difference and not assume that students are operating under the same set of values. By clarifying expectations with their students, educators can help students understand the standards to which they will be held.

Study results demonstrated that students had no higher incidence of participation in cheating than educators. This suggests that educators and students may be more similar than might be expected. Educators were, however, more likely to have participated in unprofessional behaviors than students. Although there may be many explanations for this finding, it is important to remember that radiologic science faculty should model the behaviors they expect of their students.

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