# Use of the Social Cognitive Theory to Explain Cheating in College: Implications for Future Health Professionals

# Theresa M. Enyeart Smith, Audrey J. Burnett and Maria T. Wessel

## Abstract

Upholding academic integrity is a key part of becoming a successful, ethical health educator and professional. Many universities struggle with students engaging in academically dishonest behaviors, ultimately increasing the chance of compromising their futures as professionals in today's society. The purpose of this study was to assess four factors related to cheating among college students: the effects of cheating on academic preparation, perceptions of cheating behaviors, knowledge of the honor code, and honor code violation behaviors. Following the administration of a 74-item instrument, data were collected and analyzed from a sample of undergraduate students. Results of 912 participants indicated over half of seniors (52.9%) reported cheating during college, plagiarism was reported most frequently, averaged 66% on knowledge questions, and the main motivation for cheating was to earn good grades for graduate school (49.3%). The most frequently reported major among the sampled participants was Health Sciences; students preparing to become a health educator/professional. Social Cognitive Theory constructs were used to explain cheating behaviors and showed that observed behaviors that do not appear to have consequences serve as motivating factors. These results indicate that greater effort is needed, at the university level, to decrease cheating and improve ethical behavior among future professionals.

#### Introduction

All individuals have a responsibility to uphold integrity and honesty. University honor systems are frameworks that guide students into their professional codes of ethics. College graduates, including health educators and health professionals, have a clear responsibility to uphold high academic standards and must practice consistent ethical behaviors within their

- \*Theresa M. Enyeart Smith, Ph.D., CHES: Associate Professor, James Madison University, 235 Martin Luther King Jr. Way, MSC 4301, Harrisonburg, VA 22807; Email: enyeartm@jmu.edu; Fax: 540-568-3336.
- Audrey J. Burnett, Ph.D., CHES: Associate Professor, James Madison University, 235 Martin Luther King Jr. Way, MSC 4301, Harrisonburg, VA 22807; Email: burnetaj@ jmu.edu; Fax: 540-568-3336.
- Maria T. Wessel, Ed.D., CHES: Professor, James Madison University, 235 Martin Luther King Jr. Way, MSC 4301, Harrisonburg, VA 22807; Email: wesselmt@jmu.edu; Fax: 540-568-3336.

\* Corresponding Author

careers. The study of academic ethics and integrity is broad and has focused on student perceptions of and justification for cheating and academic dishonesty (McCabe, Butterfield, & Treviño, 2012; Schwartz, Tatum, & Hageman, 2013), and attitudes toward plagiarism (Jiang, Emmerton, & McKauge, 2013). More specifically, East and Donnelly (2012) defined academic integrity as "understanding what it means to be honest in the particular culture of the academic world, and being able to apply the scholarly conventions of acknowledgment" (p. 1). Other variables related to academic cheating that have been examined include justification and witnessing classmates cheating, academic-integrity responsibility and gender differences, importance of academic ethics, strength of academic ability, and deep learning strategy (Jurdi, Hage, & Chow, 2012). Additionally, the discrepancy in student attitudes, behaviors, and justification in relation to cheating is often dependent upon the academic task (e.g., homework versus exams) (McCabe et al., 2012). The influence of information technology (IT) also plays a role in students justifying their cheating behavior (Michael & Williams, 2013). It has been identified that many factors and environments may be perceived to encourage cheating behaviors. It should also be noted that in the review of literature the terms "cheating", "academic dishonesty", and "academic misconduct" are sometimes used interchangeably.

It is important to understand reasons students engage in cheating behaviors, as well as their perceptions of such behaviors (McKibban, 2013). It is particularly important for Health Sciences students, given their profession is rooted in ethical reasoning and practice. It is also important to uphold comprehensive, clear, and well-designed campus policies to address academic integrity and dishonesty via high standards and strict punishment and grievance processes (Michael & Williams, 2013). Furthermore, the development of a modified honor code may be warranted to reduce academic dishonesty. An examination of how students' ethical standards in the classroom translate to the professional world should also be considered (McCabe et al., 2012).

Several theoretical frameworks have been utilized to study academic honor code violations and integrity, including the Theory of Planned Behavior (e.g., Stone, Jawahar, & Kisamore, 2010), Egoism and Utilitarianism Theory (e.g., Lau et al., 2011), Goal Orientation Theory (e.g., Miller et al., 2011), and Reasoned Action (e.g., Simkin & McLeod, 2010). However, there have been a minimal number of studies that incorporate the Social Cognitive Theory (SCT) (e.g., Yang, Huang, & Chen, 2013). Therefore, in an effort to advance the existing literature, the current study utilized the Social Cognitive Theory as a framework to examine students' perceptions and behaviors in relation to academic cheating and plagiarism. The current study is a follow-up to a pilot study that utilized focus groups with upperclass Health Sciences students. The focus group questions provided a baseline for question development to ensure the clarity of survey items in the current study. The current study's sample population was derived from surveying the entire campus' student body to produce more generalizable results and to investigate behaviors among Health Sciences students.

The purpose of this study was to assess four main factors possibly correlating with honor code violations among college students. The factors included identifying cheating behaviors among the student sample, student perceptions of what constitutes cheating, themes/reasons provided by the student sample for cheating, and knowledge of the university's Honor Code on behaviors related to academic integrity, specifically, honor code violations. An understanding of the four main factors is warranted; particularly in relation to how one's cheating behaviors in college often translate to professional conduct in the real world. Ethical behavior and personal integrity are important characteristics to possess as leaders in today's dynamic health care field when addressing various ethical dilemmas.

## Methodology

The current study consisted of an undergraduate student sample. Male and female students were equally requested to participate in the study. The age of the students was 17 and older.

Following IRB approval, the 74-item survey was sent to the entire undergraduate student population using the bulk e-mail system. As an incentive to participate, each student who participated was entered into a drawing for one of five \$20 gift cards. The administration and availability of the online survey occurred over a two-week period. Statistical analyses were conducted following this two-week period.

## Instrumentation

The survey used for the current study was developed to assess students' attitudes about what constitutes cheating, knowledge of the University Honor Code, personal cheating behavior, likelihood of reporting cheating behavior, and demographic information. Survey items used to assess what constitutes cheating included 28 statements in which respondents were directed to provide their opinion of whether the statement was cheating using a Likert scale. This section of the survey was revised from Colnerud and Rosander (2009), which covered 23 situations or scenarios. Colnerud and Rosander (2009) conducted factor analyses and the 23 scenarios had high internal consistency. The five additional items resulted from the information obtained in focus groups, which were conducted to guide the current study. Items used to assess students' knowledge of the University Honor Code included five multiple-choice questions and 16 true-false questions. These questions were developed in alignment with the University Honor Code test that all incoming students must take, which measures knowledge about the content of the current university's Honor Code and Honor Council procedures.

Also included were seven multiple response or openended items used to assess personal cheating behaviors, cheating behaviors witnessed, and motivations to cheat. To determine the likelihood of reporting cheating behavior, respondents reported their answers using a Likert scale. Finally, demographic items included gender, major, pre-professional preparation, academic level, age, membership in the Honor Council, plans after graduation, and current GPA.

Construct and face validity were determined via review of the items among four colleagues within the field. Four health professionals reviewed the survey to determine that major constructs were addressed and questions were comprehensive and clear for the purposes of the study.

## **Data Analysis**

SPSS, version 23, was used to assess variables. Descriptive statistics included means, modes, medians, types of cheating behaviors, perceptions of cheating behaviors, observed cheating behaviors, characteristics of those who report cheating behavior, honor code system knowledge, and honor code violations. The results provided a baseline of the factors previously listed to determine current behaviors, perceptions, and knowledge of the student participants to assist with identifying where needs for improvement exist in the current Honor Code system.

Anonymity was achieved within this study, as students were not asked to provide any identifying information, such as a name or student identification number. To further maintain anonymity, students were directed to a separate link, not associated with their responses, to collect their name and e-mail information, which was used to enter the drawing for a gift card.

## Results

The following are the results of participants' responses to the survey. They illustrate a profile of the participants and their knowledge, attitudes, and behaviors related to cheating.

#### Demographics

The participant sample for the current study included 912 undergraduate students, with ages ranging from 17 to 45, enrolled, at the time of the study, at a public co-educational university with a total student population of approximately 21,000; a majority of whom are undergraduate. The university is located in the mid-Atlantic region (see Table 1). In addition, the greatest proportion of respondents reporting their academic status were juniors (30.5%), and a majority reported either planning to work (40.0%) or attend graduate school (43.5%) after they graduate from the institution. Although student majors consisted of various majors offered by the university, the greatest proportion of students were categorized as a Health Sciences major (15.2%). The male to female ratio for the current study was 21.6% to 78.4%, which contains a higher female representation compared to the university male to female ratio of 40% to 60%.

Table 1.

Participant Demographics

Variables	N (Percent)
Gender	
Male	164 (21.6%)
Female	594 (78.4%)
Academic Level	
Freshman	167 (22.0%)
Sophomore	170 (22.4%)
Junior	231 (30.5%)
Senior	189 (24.9%)
Top 10 Academic Majors Represented	
Health Sciences	115 (15.2%)
Psychology	55 (7.3%)
Biology	50 (6.6%)
Nursing	42 (5.5%)
IDLS	30 (4.0%)
Double Major	29 (3.8%)
Accounting	24 (3.2%)
Undecided	21 (2.8%)
Media & Arts Design	20 (2.6%)
English	20 (2.6%)
Member of University Honor Council	
Yes	8 (1.1%)
No	750 (98.9%)

## **Attitudes about Cheating Situations**

Students reported on 28 activities that they perceived as constituting cheating. The most salient of the activities to which students responded a resounding 'yes, definitely' included items, such as turning in someone else's work (93.4%), purchasing papers (92.8%), copying test information on electronic devices to show to others (90.4%), and leaving notes for others (90.2%) (see Table 2).

Several situations were more challenging for students to distinguish as definitive cheating as defined by the Honor Code. These situations had significant distributions between 'yes, definitely' and 'it may be cheating,' respectively. These items included cooperating with others on individual assignments (51%; 27%), doing what you know is wrong (49%; 25.3%), not correctly referencing works (45.2%; 34.2%), and not intervening when another cheats or plagiarizes (33.9%; 24%). Only one situation was rated by the majority as 'no definitely not' cheating, which was getting feedback from a friend on work to be submitted (61.8%).

Several items resulted in a range of ratings from 'it may be cheating,'to 'undecided,'to 'it may not be cheating,' respectively, making it difficult to clearly classify the situation as definitive cheating or not. These situations included summarizing course information for each other instead of reading it (25.5%; 18.1%; 19.6%), referring to material without having read the original text (19.1%; 31.6%; 21.9%), self-plagiarism (18.5%; 18.4%; 21.6%), and leaving study notes for others (18.3%; 13.5%; 15.8%).

## Knowledge of the University Honor Code

Students responded to questions about their knowledge of the honor code violations, penalties, and procedures. The mean knowledge score of correct responses was 66.08%. Correct and incorrect responses were similar across all academic levels. When asked about who serves on the Honor Council, a majority (82.7%) correctly indicated both faculty and students. When asked to identify penalties for first-time Honor Code violations, only 26.6% answered correctly. Participants were also asked to indicate when a student may be assigned to attend an ethical decision-making and goal-setting workshop as a penalty; only 36.5% answered correctly. Regarding knowledge of Honor Council Hearing Board procedures, 78.1% of students correctly identified academic advisors would not be a member of a hearing board.

A total of 16 additional true-false items pertaining to the University Honor Code were included. An overwhelming

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## Table 2.

Most Commonly Reported Accurate, Inaccurate, and Indecisive Perceptions of Cheating

Variables	Percent	
Accurate		
Hand in someone else's paper with your name on it	93.4%	
Purchase/download a paper and hand it in with your name on it	92.8%	
Copying test information with a phone/other device to show others	90.5%	
Hand in, with a friend's permission, his/her paper with your name on it	90.4%	
Leave a note with exam solutions in a restroom, to help a friend	90.2%	
Inaccurate		
Re-use your text from previous papers, without referring to yourself	25.2%	
Refer to a book/article without having to read the original text	16.2%	
Leaving study notes for others	13.2%	
Help a friend by doing his/her homework	13.1%	
Using notes that were found	10.7%	
Indecisive		
Refer to a book/article without having to read the original text	72.6%	
Summarize course literature for each other instead of each person reading	67.4%	
Leave out results which are not in line with main results	60.5%	
Re-use your text from previous papers, without referring to yourself	58.5%	
Do the bare minimum in a group project and let others do a lot more	56.5%	

majority of students (>90%) correctly identified statements related to violations and roles and responsibilities. These items included making up reasons to avoid taking an exam, faculty and staff responsibilities with the Honor Code process, and professors' options regarding consequences for Honor Code violations. Other statements a majority of participants answered correctly included items related to who can report Honor Code violations, the appeal process, and the specific list of Honor Code violations.

In terms of questions pertaining to Honor Council hearings and penalties, students overwhelmingly answered correctly items about the right to appeal (96.5%) and unresolved Honor Code violations as a barrier to graduation (94.3%). Students incorrectly answered items related to decisions on open or closed hearings (82.4%) and the timing of convening hearing boards (80.9%).

## **Cheating Behaviors of Participants**

Cheating behaviors were assessed to determine frequency of cheating, consequences, and motivations to cheat. Of those who responded to the items asking if they had ever cheated in college, most students (62.8%) reported they have never cheated. An aggregate of 29.1% reported cheating one to four times. Having cheated five to nine times was reported by 5.0% of the participants who reported having ever cheated in college. A low percentage of the sample (3.1%) reported cheating repeatedly, 10 or more times (see Table 3). In response to the question about the consequences of cheating, 90.67% of students who reported cheating stated that nothing happened/they were not caught, and 6.67% stated they had a grade penalty. When asked about any consequences of cheating behavior that was witnessed, most students stated that they did not know or remember the consequence (53.6%) or that the observed student did not face a consequence (33.1%).

Motivations to cheat were reported by those who admitted to cheating (see Table 4). Students could check all responses that applied, and among the 300 students who reported cheating, 49.33% said they felt pressure to get good grades to get into graduate school, 29.67% said other students were doing it and not getting caught, and 12.0% said the teacher didn't do anything to prevent it. In addition, a total of 22.67% stated "other reasons," which may be reflected in students' comments, such as "helping someone out," "I didn't think I was cheating at the time," "procrastinated or overwhelmed," "the teacher was unfair," "the assignment was complicated," "the test was unfair/hard," and "money," which may refer to payment to complete an assignment for someone else or a completed assignment purchased online.

When students were asked what they thought motivated others to cheat (also a multiple response question), 77.5% reported that students were unprepared for an assignment or test, 75.0% stated students felt pressure to get good grades to get into graduate school, and 50.8% felt it would lead to good grades and they would be more successful in their career. Motivations to cheat related to opportunity were also mentioned. Specifically, 50.1% stated technology makes it easier, and 52.6% said the opportunity presented itself (e.g., the

Table 3.

riables	Ν	Percent
Yes, 10 or more times	25	3.1%
Yes, between 5-9 times	40	5.0%
Yes, between 2-4 times	130	16.1%
Yes, one time	105	13.0%
No, I have never cheated	507	62.8%

teacher left the room or the material was available to view for a test). Other motivators mentioned were that the teacher did not do anything to prevent cheating (31.4%), and students thought that cheating was reinforced by others cheating and not getting caught or punished (57.5%) (see Table 4).

#### Likelihood of Reporting Cheating Behavior

Students reported they have witnessed their peers using technology to cheat, such as using apps, texting, and using a second device when they were limited to completing their work with a lockdown browser, which prohibits opening the browser to search other sites. Students also reported they have seen their peers copying from others, using notes or other materials, talking during tests, lying on reports, and using inaccurate references or omitting references. In addition to what cheating situations students reported they had witnessed, their likelihood of reporting specific observed cheating situations was assessed using a five-point Likert scale, with responses ranging from "Yes, I would definitely report" to "No, I would definitely not report." Eight behaviors that are Honor Code violations were listed, and responses to each behavior were fairly evenly distributed across the range of responses, indicating students are reluctant to report the cheating behavior of their peers. Interestingly, the behavior that had the highest percentage (56.9%) of students who said they would definitely or possibly report was when other students did not do their fair share of the work in group projects, compared to plagiarism (39.6%) or working with someone else on an individual assignment (32.6%). However, almost half (49.8%) said they would definitely or possibly report if they saw someone cheat.

#### Discussion

The results of this study may be generalized to other undergraduate university student populations with similar demographics, including gender, major, and year in school. It also may be generalized to other undergraduate university student populations as most, or all, schools have Honor Codes, Codes of Ethics, or Student Codes of Conduct. Students with a wide variety of majors responded to the survey; however, the results do not reflect equal proportions of majors on the current campus. This study illustrates phase two of a threephase ethics project. Phase one included focus groups with Health Sciences majors, which provided input for the survey

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development for phase two. Phase two was designed to assess students' cheating attitudes and behaviors across majors with the desire to obtain any comparisons useful for professional preparation of Health Sciences students for phase three. Phase two did not provide the cross major comparisons desired, but rather provided general information on cheating attitudes and behaviors. Phase three, based on the framework of the Code of Ethics for the Health Education Profession, is planned to assess the development of professional ethics across academic levels. Phase three will particularly be guided by Article VI: Responsibility in Professional Preparation (Coalition of National Health Education Organizations, 2011). It is important to investigate cheating behaviors in the college environment as these shortcuts may perpetuate overtime when students become health professionals. The SCT has been used to demonstrate the environmental influences on behavioral decisions (i.e. cheating) and the continuation of behaviors.

The results related to students' perceptions of what constitutes cheating are similar to those reported by Colnerud and Rosander (2009), with most students identifying the same seven situations clearly as cheating or plagiarizing, with a majority of those items characterizing situations involving those items characterizing situations involving plagiarism of another's work. Also, similar to Colnerud and Rosander (2009), most students identified three items as not cheating, including looking at old exams to prepare for a test (without permission from the instructor), including a reference without having read the original text, and self-plagiarism. Interestingly, even with increased use of technology and a time gap of approximately eight years since the previous study and the current study, the quantitative assessment of what constitutes cheating is similar.

Students who reported cheating behaviors had varied attitudes about the acceptability of cheating, in general, and the justification for cheating on different academic tasks, such as homework, group work, or tests, and the use of technology to facilitate cheating (Michael & Williams, 2013). Some incidents may be explained by students lacking a clear understanding of the 'rules' of the assignment, such as being allowed to work with others or only work independently. Another explanation may be that respondents lacked knowledge of the university Honor Code, including specific examples of violations. Other explanations are that students do not properly cite sources in their work due to laziness or poor time management. It is likely that students are instructed on giving proper credit to others'

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Table 4.

Self-Reported and Perceived Motivators for Cheating

Variables	N	Percent
Self-Reported Motivators among Those Who Reported Cheating (N = 300)		
(Multiple responses allowed)		
Felt pressure to get good grades to get into graduate school	148	49.33%
Other students are doing it and not getting caught/punished Other	89 68	29.6% 22.67%
Teacher does not do anything to prevent it	36	12.0%
Perceived Motivators of Other Students ( $N = 912$ )		
(Multiple responses allowed)		
Unprepared for assignment/test	707	77.5%
Felt pressure to get good grades to get into graduate school	684	75.0%
Other students are doing it and not getting caught/punished	524	57.5%
Teacher left the room / material available to view	480	52.6%
Cheating will help get good grades and help for a successful career	463	50.8%
Technology makes it easer	457	50.1%
Teacher does not do anything to prevent it	286	31.4%
Other	81	8.9%

work and not citing sources is clearly plagiarism – an Honor Code violation. Yet, plagiarism continues to be an ethical issue that professors deal with in student research and writing assignments.

When students identified what led them to cheat, the respondents rarely stated it was "their fault." Only when respondents admitted they procrastinated to get assignments completed by the deadlines, or they did not leave enough time to study for exams, did the reasons they cheated include a sense of personal responsibility. Not admitting personal responsibility for cheating may lessen a sense of guilt.

While the current university maintains a formal system of educating and testing incoming students on the university Honor Code, students' overall knowledge of the Honor Code is relatively low, and may actually weaken during the course of one's academic study. Therefore, rather than simply stating on course syllabi that the Honor Code applies to all assignments and assessments, a more effective means to remind students of the Honor Code may be to provide explicit examples relevant to the course. In addition, refresher online workshops or guizzes on policies, procedures, and academic ethics and moral reasoning throughout students' undergraduate study may be useful (McCabe et al., 2012). It may also be more important to determine what knowledge students should have about the Honor Code. For example, knowledge of what constitutes a Hearing Board may not restrict cheating, whereas knowledge of penalties pertaining to Honor Code violations may be a deterrent.

One of the tenets of many universities' (e.g., University of California – San Diego, Hamilton College) academic Honor Codes is to report peers who are cheating or suspected of cheating (Hamilton College, 2016; Hamlin, Barczyk, Powell, & Frost, 2013). Nevertheless, a student's knowledge of the Honor Code may either help or hinder reporting of cheating peers (Schwartz et al., 2013), depending on the student's expectations, self-efficacy, intrinsic motivation, empathy toward peers, personal moral code, or if he/she thinks the consequences bestowed to a peer are too punitive (Yang et al., 2013). For instance, if a student maintains the expectation that the Honor Code is effective in reprimanding cheating students, he/she may be more likely to report a cheating peer (Aasheim, Rutner, Li, & Williams, 2012; O'Neill, & Pfeiffer, 2012; Schwartz et al., 2013; Shurden, Santandreu, & Garlic, 2013). However, if the Honor Code penalties are viewed as too punitive, a student may decide not to report a cheating peer (Burrus, Jones, Sackley, & Walker, 2013).

An additional facet of reporting behavior regarding Honor Code violations is that not only are students reluctant to report, based on the current results, but faculty are also not reporting students who cheat, per anecdotal evidence. Faculty may view the system as too time-consuming or complicated, not wanting to get involved at all, or requiring too many procedures. Nevertheless, university Honor Codes have been found to be effective in deterring cheating behavior (McCabe et al., 2012; Schwartz et al., 2013).

## **Social Cognitive Theory Application**

One main notion from application of the SCT to the study is the reinforcement of the allowance of cheating due to no observed consequences. The current study indicated that a majority of participants who cheated at some point did not face a consequence associated with the behavior, which seems to reinforce and vindicate the behavior. When applying the SCT, if a behavior is learned vicariously with a perceived negative consequence associated with it, then an individual is more likely to inhibit that behavior for him- or herself (Denler, Walters, & Benzon, 2014). However, positive reinforcement, which can simply include not having a negative consequence associated with the behavior, may encourage behaviors, whether they are positive or negative.

Reinforcement and vicarious learning are also factors identified to help to increase self-efficacy related to specific behaviors. Self-efficacy is a highly influential component to enhancing or inhibiting a behavior, as it is an individual's belief of successfully completing a task or behavior (Denler et al., 2014). Students' self-efficacy levels related to cheating may be increased, as the behavior is reinforced through the lack of having to personally face a consequence or seeing others cheat without facing a consequence. This increased level of selfefficacy may then create a greater ease to continue the negative behavior. Motivating factors identified in the study included teachers not taking action to prevent cheating in the classroom, and seeing or hearing about other students cheating without being caught or punished. These motivating factors may also ultimately enhance self-efficacy. Finally, outcome expectations and expectancies, which may help to explain some of the reported motivational factors related to perceptions of cheating among peers of the student respondents, were analyzed. Many students, including future health educators/professionals, have the expectation of attending postgraduate programs requiring strong grade point averages (GPA). Gaining entrance into the chosen graduate program may be key for the student to achieve their professional goals, therefore, a highly sought after step to achieve (outcome expectancy). Due to the perceived need to attain a high GPA to gain admittance into the program of choice (outcome expectation), a majority of all student respondents (both those who admitted cheating and those who did not cheat) indicated that they felt the pressure to earn good grades was a motivating factor to cheat. The outcome expectation of needing to earn a high GPA translated into a motivating factor for over half of the student respondents, who indicated that cheating would help them earn good grades, which would then help them reach their future professional academic and career goals.

## Limitations

Although the current study provided great insight into current behaviors of college students related to academic integrity, several limitations presented themselves throughout the process. The first limitation is the fact that the participants were self-selected and a campus-wide random sample was not used. As a result, a disproportionate number of females participated, limiting data analysis by gender. In addition, the subject matter was a sensitive topic, and some students may have chosen not to participate for that reason. Considering the length of the instrument used within the study and the sensitive nature of the information being assessed, some participants did not complete the total survey. A specific drop off point was not identified and students seemed to randomly choose to not complete certain questions.

The current study also relied on self-reported data associated with socially unacceptable behaviors related to academic integrity. While it was the aim to gain truthful responses from participants by gathering anonymous data, it is realistic to assume that not all student responses were accurate and honest. If a student did not respond in truth, he or she may have responded in a manner considered to be expected behavior among students, or he or she may have felt that the truthful response may result in a consequence, such as an Honor Code violation. Inaccurate responses, or not accurately remembering past behaviors, may also skew the data toward positive behaviors. If this were the case, this could mean that a greater incidence of cheating behaviors may exist among the sample population, further enhancing the magnitude of the problem at hand.

## **Future Research**

The current study provided insight to college cheating and inspiration for future research for greater understanding and generalizability. Survey administration in targeted classes or use of a stratified random sample may be used to achieve a representative sample of majors and academic levels. This would also allow the identification of specific behaviors and motivating factors more common among each major, which could then be further analyzed and related to the future career path, including health educators and professionals. Analysis of cheating knowledge, attitudes, and behaviors by demographics, including major, gender, academic level, or GPA, may also provide more in-depth information. In addition, analyzing relationships, if any, between the variables, such as knowledge of the Honor Code and personal cheating behavior, reporting others' cheating behavior, and perceptions of what constitutes cheating, may be conducted. Future research could also include assessment of students who pay for assignments or entire classes completed by others. There are individuals and companies engaged in the business of cheating. The cheating industry is changing rapidly and may have an even greater impact on academic integrity (Wolverton, 2016). Another area for future research could be determining what Honor Code knowledge is essential for students to retain to influence academic integrity. In addition, a pre-posttest project with an Honor Code knowledge 'refresher' course could be conducted to assess Honor Code knowledge gains over time. Investigating the link between academic cheating and professional ethics may also be useful, considering unethical behaviors in the academic setting may transfer to the professional setting.

## Conclusion

The current study can provide insight into cheating behaviors as a lead in to phase three of the overall study, which is designed to address ethics for the health education profession. A university's goal of producing enlightened, educated, and moral stewards necessitates the implementation of a strong Honor Code. A serious consideration regarding academic dishonesty at the undergraduate level is whether such behavior transfers to other shortcuts and dishonesty in students' futures as health professionals once they enter the workforce. Health educators and professionals must uphold the highest integrity.

#### References

- Aasheim, C. L., Rutner, P. S., Li, L, & Williams, S. R. (2012, Fall). Plagiarism and programming: A survey of student attitudes. *Journal of Information Systems Education*, 23(3), 297-313.
- Burrus, R. T., Jones, A. T., Sackley, B., & Walker, M. (2013, Spring). It's the students, stupid: How perceptions of student reporting impact cheating. *American Economist*, 58(1), 51-59.
- Coalition of National Health Education Organizations. (2011). Code of ethics for the health education profession. Retrieved from http://www.cnheo.org/files/coe\_full\_2011. pdf
- Colnerud, G. & Rosander, M. (2009, Oct.). Academic dishonesty, ethical norms and learning. Assessment & *Evaluation in Higher Education.* 34(5). 505-517.
- Denler, H., Walters, C., & Benzon, M. (2014, January 28). Social Cognitive Theory. Retrieved from: http://www. education.com/reference/article/social-cognitive-theory/
- East, J., Donnelly, L. (2012, December 19). Taking responsibility for academic integrity: A collaborative teaching and learning design. *Journal of University Teaching & Learning Practice*, 9(3). Retrieved from http://files.eric. ed.gov/fulltext/EJ996016.pdf
- Hamilton College. (2016). Honor code. Student Handbook: Code of Student Conduct. Retrieved from https://www. hamilton.edu/student-handbook/studentconduct/honor-co de?version=meter+at+0&module=meter-Links&pgtype=a rticle&contentId=&mediaId=&referrer=https%3A%2F% 2Fwww.google.com&priority=true&action=click&conten tCollection=meter-links-click
- Hamlin, A., Barczyk, C., Powell, G., & Frost, J. (2013). A comparison of university efforts to contain academic dishonesty. *Journal of Legal, Ethical and Regulatory Issues*, 16(1), 35-46.
- Jiang, H., Emmerton, L., & McKauge, L. (2013, February). Academic integrity and plagiarism: A review of the influences and risk situations for health students. *Higher Education Research & Development*, 32(3), 369-380.
- Jurdi, R., Hage, H. S., & Chow, H. P. H. (2012). What behaviours do students consider academically dishonest? Findings from a survey of Canadian undergraduate students. *Social Psychology of Education*, 15(1), 1-23.
- Lau, L. K., & Haug, J. C. (2011). The impact of sex, college, major, and student classification on students' perception of ethics. *Mustang Journal of Busines Ethics*, 2, 92-105. Retrieved from http://www.mustangjournals.com/mjbe/ v2 mjbe 2011.pdf#page=92

- McCabe, D. L., Butterfield, K. D., & Trevino, L. K. (2012). Cheating in college: Why students do it and what educators can do about it. Baltimore, MD: The Johns Hopkins University Press.
- McKibban, A. R. (2013). Students' perceptions of teacher effectiveness and academic misconduct: An inquiry into the multivariate nature of a complex phenomenon. *Ethics & Behavior*, 23(5), 378-395. DOI: 10.1080/10508422.2013.787918
- Michael, T. B., & Williams, M. A. (2013). Student equity: Discouraging cheating in online courses. *Administrative Issues Journal*, 3(2), 30-41. doi: 10.5929/2013.3.2.8
- Miller, A., Shoptaugh, C., & Wooldridge, J. (2011). Reasons not to cheat, academic-integrity responsibility, and frequency of cheating. *Journal of Experimental Education*, 79, 169-184. doi: 10.1080/00220970903567830
- O'Neill, H. M., & Pfeiffer, C. A. (2012). The impact of honor codes and perceptions of cheating on academic cheating behaviors, especially for MBA bound undergraduates. *Accounting Education*, 21(3), 231-245. doi: 10.1080/09639284.2011.590012
- Schwartz, B. M., Tatum, H. E., & Hageman, M. C. (2013). College students' perceptions of and responses to cheating at traditional, modified, and non-honor system institutions. *Ethics & Behavior*, 23(6), 463-476. doi: 10.1080/10508422.2013.814538
- Shurden, M. C., Santandreu, R. J., & Garlic, J. (2013, February). Issues in academic integrity: Improving academic honor codes. *American Society of Business and Behavioral Sciences Proceedings*, 20(1), 417-422.
- Simkin, M. G., & McLeod, A. (2010). Why do college students cheat? *Journal of Business Ethics*, 94, 441-453. doi: 10.1007/s10551-009-0275-x
- Stone, T. H., Jawahar, I. M., & Kisamore, J. L. (2010). Predicting academic misconduct intentions and behavior using the theory of planned behavior and personality. *Basic and Applied Social Psychology*, 32(1), 35-45. doi:10.1080/01973530903539895
- Wolverton, B. (2016, August 28). The New Cheating Economy. The Chronical of Higher
- Education. Retrieved from http://www.chronicle.com/article/ The-New-Cheating-Economy/237587.
- Yang, S. C., Huang, C., & Chen, A. (2013). An investigation of college students' perceptions of academic dishonesty, reasons for dishonesty, achievement goals, and willingness to report dishonest behavior. *Ethics & Behavior*, 23(6), 501-522. 23:6, 501-522. doi: 10.1080/10508422.2013.8

# This article may provide one Continuing Education Contact Hour Opportunity for CHES (Approval Pending) Instructions and self-study questions may be found on page 39