Pharmacy Student Perceptions of Academically Dishonest Behavior in Skills Activities

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INTRODUCTION

- Academic integrity is expected in professional programs, such as schools of pharmacy, but multiple studies have indicated that large numbers of students engage in academically dishonest behaviors. [1,2]

- Studies have assessed students' motives for cheating, view on cheating and perceived consequences of cheating in schools of pharmacy. [3,4]

- Data related to student perceptions of dishonest academic behaviors for skills/lab activities appears to be lacking in the literature.

OBJECTIVES

- The primary objectives of the study were to:
  (1) Assess pharmacy student perceptions of academically dishonest behavior across multiple skills activities.
  (2) Determine if correlations exist between students' perceived wrongness and their willingness to engage in the academically dishonest behavior(s).

METHODS

- This IRB-approved study was conducted in April 2022.

- All students in the PharmD program at the West Virginia University School of Pharmacy were asked to complete an anonymous, electronic survey.

- The survey included 12 scenarios involving academic dishonest behavior related to skills/lab activities.

- Students were asked to answer 18 questions about whether each student's behavior in the presented scenarios was wrong and their willingness to engage in the behavior. Answer options included "yes", "no" and "I'm not sure."

- Descriptive statistics were completed, as well as a Spearman-R correlation between agreement of wrongness and willingness to participate in the academic dishonest behavior.

RESULTS

- 200 students completed the survey (76.3% response rate) in Spring 2022.

RESULTS

Table 1: Student Demographics

	Total Cohort (N=200)	P1 (N=52)	P2 (N=57)	P3 (N=25)	P4 (N=66)
Gender					
Female	133	31	46	15	41
Male	67	21	11	10	25
Age (Years)					
> 28	9	2	3	1	3
26-28	13	2	2	1	8
24-25	62	5	9	2	46
21-23	106	33	43	21	9
19-20	10	10	0	0	0
Perceived percentage of students who engage in academic dishonesty					
0	8	1	3	0	4
1-25%	128	36	34	20	38
26-50%	45	14	14	4	13
51-75%	16	1	6	0	9
>75%	3	0	0	1	2

Table 2: Perceptions of Wrongness, Willingness to Engage, and Engagement

	Student A's actions are wrong (%)	I would be willing to engage in the same action as Student A (%)	I have engaged in the same action as student A (%)	Student B's actions are wrong (%)	I would be willing to engage in the same action as Student B (%)	I have engaged in the same action as student B (%)
Scenario 1: Students A and B are partners in a **compounding** course. To save time during a graded assignment, Student A **weighs** their own materials and materials for Student B, and Student B uses the materials weighed by Student A to complete their assignment.	114 (57)	73 (36.5)	20 (10)	131 (65.5)	57 (28.5)	13 (6.5)
Scenario 2: Student A is completing a graded **patient counseling** where students are not permitted to use notes. Student A has written counseling points for each medication on a small piece of paper and refers to it while completing the counseling activity.	187 (93.5)	8 (4)	5 (2.5)	-	-	-
Scenario 3: Student A is completing a take-home assignment that requires students to **monitor blood glucose levels** three times daily for one week, and to create a log of blood glucose readings. Student A turns in a blood glucose log of fake blood glucose readings.	144 (72)	29 (14.5)	9 (4.5)	-	-	-
Scenario 4: Student A is responsible for **providing influenza immunizations** during an IPPE rotation. After administering a vaccine to a patient, that they inadvertently used a subcutaneous needle rather than an intramuscular needle, but they do not mention this error to the preceptor.	197 (98.5)	3 (1.5)	3 (1.5)	-	-	-
Scenario 5: Student A is manually **measuring the blood pressure** of a standardized patient but is unable to hear either the systolic or diastolic reading, so they report a made-up BP reading.	164 (82)	38 (19)	33 (16.5)	-	-	-
Scenario 6: Student A is completing a proctored, graded simulated **prescription verification activity**, and uses unauthorized resources to determine what "QID" means for the prescription. which is proctored.	193 (96.5)	6 (3)	3 (1.5)	-	-	-
Scenario 7: Students A and B are completing a P/F **Objective Structure Clinical Examination (OSCE)** in practicum. Student B asks Student A the content of the OSCE stations prior to Group B's assigned start time, and Student A texts Student B the content for each of the OSCE stations.	182 (91)	47 (23.5)	42 (21)	173 (86.5)	47 (23.5)	36 (18)
Scenario 8: Students A and B are completing an individual graded **written patient case**, and Student B creates a shared online document and collaborates with Student B on the assignment.	181 (90.5)	19 (9.5)	15 (7.5)	179 (89.5)	19 (9.5)	15 (7.5)
Scenario 9: Students A and B are partners on a graded **journal club presentation** where students are expected to equally contribute. The night prior to the presentation, Student B realizes that Student A has not completed a majority of their portion of the assignment. Student B completes their own portion of the assignment, as well as most of Student A's portion and shares the analysis with Student A. During the presentation, Student B and Student A present equal portions of the article critique.	179 (89.5)	28 (14)	20 (10)	62 (31)	119 (59.5)	96 (48)
Scenario 10: Student A is completing a graded, **written drug information assignment** and submits two paragraphs from a published analysis of the corresponding study, but does not cite the published analysis	193 (96.5)	4 (2)	4 (2)	-	-	-
Scenario 11: Students A and B are completing an in-class **calculations** quiz. Student B sits beside Student A and places their scratch paper with written calculations so that Student A can see their calculations for the quiz questions. Student A copies answers from Student B's written calculations.	196 (96)	2 (1)	3 (1.5)	188 (94)	7 (3.5)	4 (2)
Scenario 12: Students A and B are completing a graded **SOAP note writing assignment** after interviewing a standardized patient. While leaving the standardized patient room, Student A overhears Student B discussing medication recommendations for the patient with another student. Student A does not use the information she overheard to form her recommendation, and she does not inform the instructor that Student B and the other student were collaborating on the assignment.	66 (33)	89 (44.5)	61 (30.5)	156 (78)	25 (12.5)	15 (7.5)

RESULTS

Table 3: Spearman Correlations (R) with Perceived Wrongness of an Action and Engagement (Willingness to Engage and Reported Engagement)

Scenario	Willing to Engage (R)	P value	Have engaged (R)	P value
Scenario 1, Student A	-0.322	<0.001	-0.042	N.S.
Scenario 1, Student B	-0.202	0.004	-0.021	N.S.
Scenario 2, Student A	-0.225	0.001	-0.521	<0.001
Scenario 3, Student A	-0.219	0.002	-0.025	N.S.
Scenario 4, Student A	0.219	0.002	-0.025	N.S.
Scenario 5, Student A	-0.047	N.S.	-0.025	N.S.
Scenario 6, Student A	0.007	N.S.	0.013	N.S.
Scenario 7, Student A	-0.038	N.S.	-0.013	N.S
Scenario 7, Student B	0.048	N.S.	0.039	N.S.
Scenario 8, Student A	-0.163	0.02	-0.392	<0.001
Scenario 8, Student B	-0.103	N.S.	-0.235	<0.001
Scenario 9, Student A	-0.441	<0.001	-0.425	<0.001
Scenario 9, Student B	-0.287	<0.001	-0.208	<0.001
Scenario 10, Student A	-0.360	<0.001	0.004	N.S.
Scenario 11, Student A	-0.004	N.S.	-0.283	<0.001
Scenario 11, Student B	-0.197	0.006	0.005	N.S.
Scenario 12, Student A	-0.076	N.S.	-0.042	N.S.
Scenario 12, Student B	0.031	N.S.	-0.146	0.04

Correlations: 0.10-0.29: weak; 0.30-0.50: moderate; >0.50: strong

CONCLUSION AND IMPLICATIONS

- Dishonest academic behaviors can undermine assessment methods in schools of pharmacy, potentially leading to graduates entering practice prior to acquiring the independent ability to perform necessary clinical tasks.

- Responses to our survey showed widespread agreement in the wrongness of multiple academically dishonest behaviors.

- In our cohort, we found only mild negative correlations between agreement in the wrongness of behavior and a willingness to engage for a small number of presented behaviors, as well only mild-moderate negative correlations between perceived wrongness and reported engagement in the behavior for a small number of presented behaviors.

- Additional studies that investigate causes and solutions to dishonest academic behaviors would be beneficial.

REFERENCES

1. Emmerton L, Jiang H, McKauge L. Pharmacy students' interpretation of academic integrity. Am J Pharm Educ. 2014 Aug 15;78(6):119. doi: 10.5688/ajpe786119.
2. Austin Z, Collins D, Remillard A, Kelcher S, Chui S. Influence of attitudes toward curriculum on dishonest academic behavior. Am J Pharm Educ. 2006 Jun 15;70(3):50. doi: 10.5688/aj700350.
3. Keener TA, Galvez-Peralta M, Smith M, et al. Student and faculty perceptions: appropriate consequences of lapses in academic integrity in health sciences education. BMC Med Educ 19, 209 (2019). https://doi.org/10.1186/s12909-019-1645-4
4. Gavaza P, Dinh S, Situ S, et al.; Examining Students' Attitudes toward Academic Dishonesty in California Pharmacy Schools. Journal of Contemporary Pharmacy Practice 1 January 2020; 67 (1): 33–44. doi: https://doi.org/10.37901/jcphp19-00014

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