Academic Integrity Among Graduate Healthcare Students

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Project Presenters

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Learning Objectives

- Identify the prevalence and key motivators of academic integrity violations among health professions graduate students

- Review the results of a university wide cross sectional study investigating student perceptions of academic integrity

- Analyze the impact of remote learning on academic integrity

Background

- Throughout academia, faculty, organizations, and regulatory accreditation agencies have dedicated significant attention to averting and identifying breaches in academic integrity

- The shift in academia produced by the COVID-19 Pandemic forced traditional learning environments to adapt to online learning or "E-Learning" by utilizing software such as Zoom and ExamSoft

- The evolution of accessible artificial intelligence software may be utilized by remote test-takers

Significance

- Violations of academic integrity occur at all levels of academia
    - Dishonest behavior may erode the trust in healthcare providers' abilities and ethical standards
    - Students complacent in such activity may fail to appreciate ethical standards

- Previous student research indicated a need for further research
    - Previous study confined to Nurse Anesthesia students
    - Study indicated 26% of students had violated academic integrity

Rationale for the Study

- To better understand the factors that contribute to academic integrity violations
  - The expansion and influence of remote learning
  - What tools are contributing to academic violations e.g. artificial intelligence
  - Aim to identify gaps in knowledge and potential solutions for improving academic integrity
  - Ultimately, foster a culture of accountability and ethical behavior

- Plan for the future based on study results

Why is this important?

- Existing literature on academic integrity has primarily focused on the traditional in-person academic setting

- Minimal but significant research has produced data that indicates artificial intelligence can potentially be devastating to academic integrity
  - ChatGPT responses were sufficient to receive a passing score on:
    - A high school English comprehension examination required to receive a diploma
    - A Master of Business Administration (MBA) final examination
    - The United States Medical Licensing Exam (USMLE), which consists of three examinations: step 1, step 2CK, and step 3

Research Questions

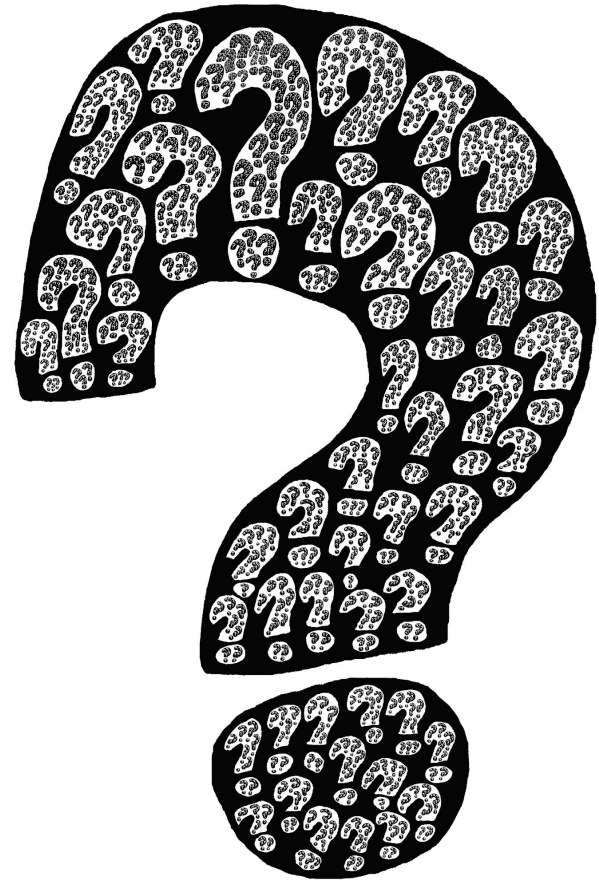**#1** How is academic integrity defined by graduate students in the medical profession?

#2 What are potential motivators for violating academic integrity?

#3 How prevalent are violations of academic integrity?

#4 How have remote learning and AI affected academic integrity? What type of detetction software is used?

Aims of the Academic Integrity Study

Expand

Continue and expand on work completed in 2022 by previous nurse anesthesia doctoral candidates

Identify

Describe the student perception, motivation, and incidence of academic integrity in a hybrid / remote learning environment

Identify student perceptions of artificial intelligence programs like ChatGPT

Determine best practice recommendations for maintaining Academic Integrity

Quantify

Incidence rates of academic dishonesty among graduate students

Detection of Academic Integrity violations

Organizational Need

Handbook

Rosalind Franklin University (RFU) student handbook does not have guidelines pertaining to artificial intelligence

Defining Academic Integrity

Help academic institutions' understand the prevalence of academic integrity violations and identify areas in which to implement change.

Identifying

Identifying the prevalence of academic dishonesty among graduate healthcare students can drive institutions to form robust programs that prioritize academic integrity.

Theoretical Model

The Theory of Reasoned Action
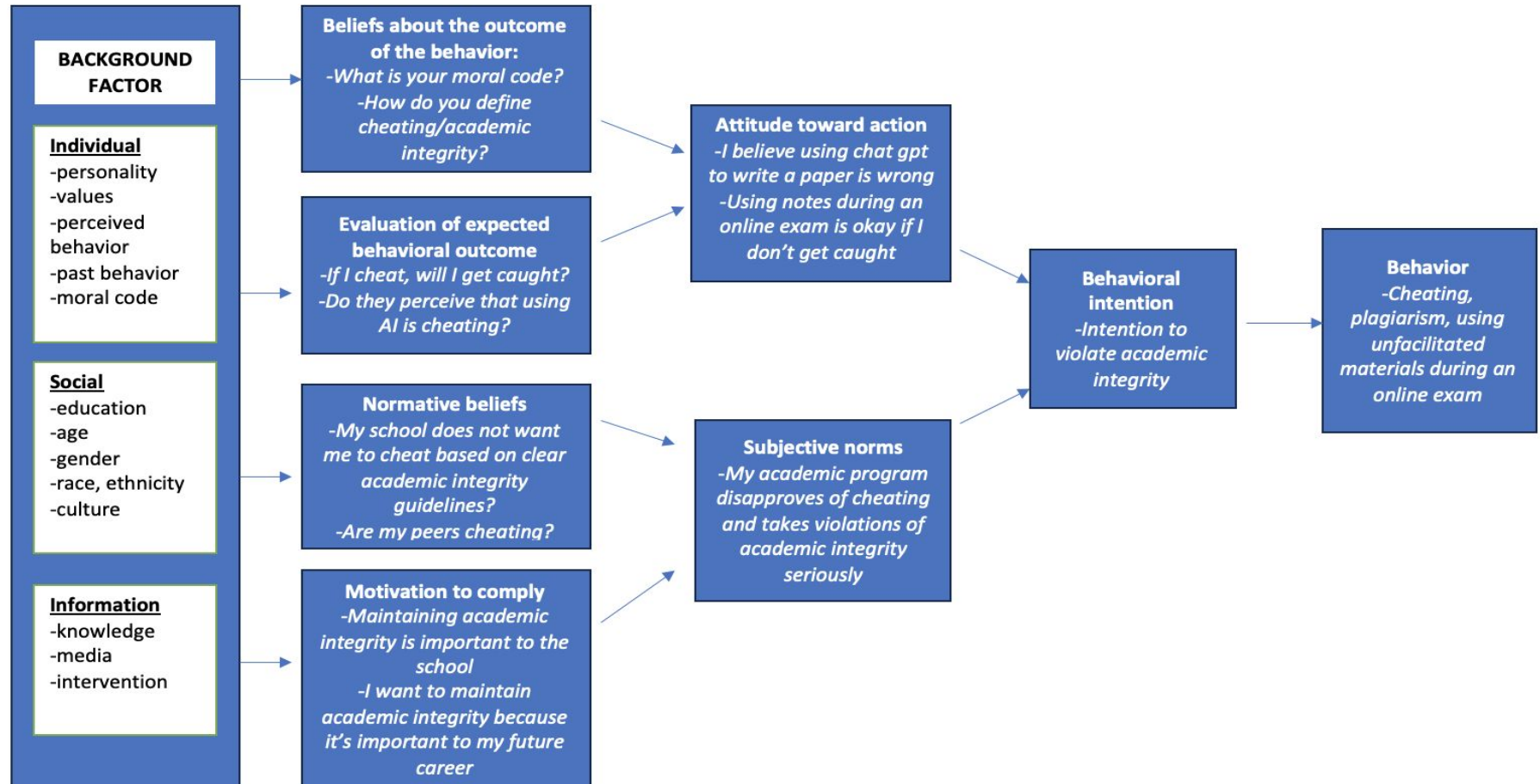
Fishbein & Azjen, 1975

Methods

- IRB Exempt status obtained
- Sampling Strategy
    - Currently enrolled Rosalind Franklin University students
- Data collected via Qualtrics survey
    - March 25, 2024 – April 22, 2024
    - 175 responses collected
    - Anonymous responses
- Responses consisted of quantitative and qualitative data
    - Quantitative data: analyzed through descriptive statistics
    - Qualitative data: analyzed through grounded theory method
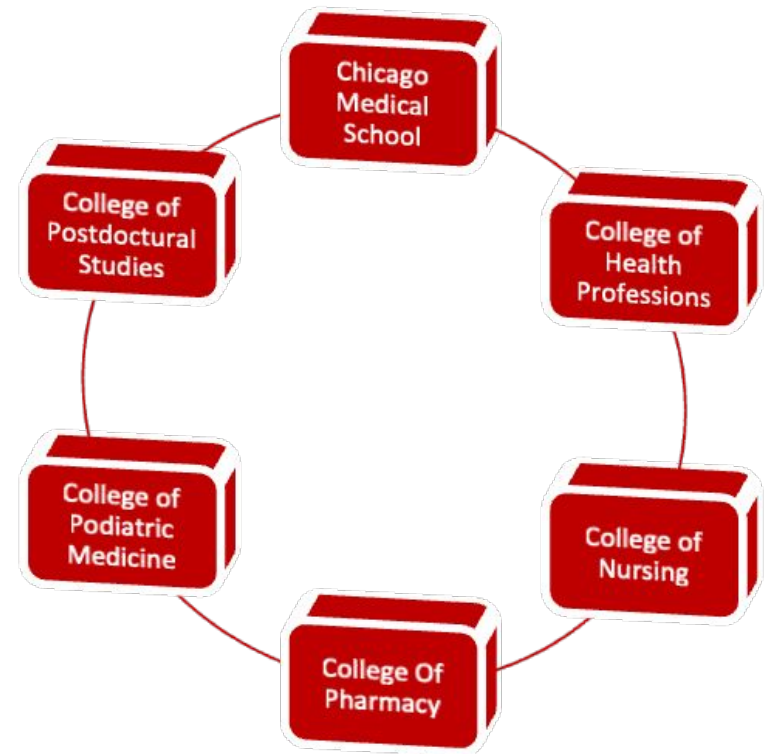
Thematic Analysis

- Qualitative Analysis
- Open ended questions
- Common themes identified and students answers were placed into those categories
- Used for these open ending questions:
  - **How do you define cheating?**
  - **How do you define academic integrity?**

"Plagarism"

"Sharing Answers"   "Having an Advantage"

"Unauthorized Material"

"N/A"   "Dishonesty"

"Breaking Academic Integrity"

"In-person Cheating"

Results

1. Demographic data
2. Defining Cheating & Academic Integrity
3. Academic Integrity Violations
4. Academic Perceptions & Experiences

Demographics of Respondents

Demographic Variable	n (%)	Demographic Variable	n (%)
Age		Years Matriculated in Program	
18-24 years	34(22)	1 year	48(31)
25-34 years	107(69)	2 years	45(29)
35-44 years	10(6)	3 years	24(16)
45 years and older	3(2)	Beyond 3 years	34(22)
		Recent graduate	3(2)
Gender		Marital Status	
Male	48(31)	Single, never married	112(73)
Female	103(66)	Married or domestic partnership	38(25)
Non-binary	2(1)	Widowed	0(0)
Other	2(1)	Divorced	3(2)
		Separated	1(1)
Ethnicity		School	
American Indian or Alaskan		Chicago Medical School	58(38)
Native	1(1)	College of Health Professions	30(19)
Asian/Middle Eastern	37(24)	College of Nursing	33(21)
Black/African American	7(5)	College of Pharmacy	10(6)
Latino or Hispanic	13(8)	College of Podiatric Medicine	20(13)
White/Caucasian	77(50)	Graduate Postdoctoral Studies	3(2)
Multiple/other	10(6)		
Prefer not to say	7(5)		
Master or Doctorate Program		First Generation Citizen	
Master's Degree	28(18)	Yes	67(37)
Doctoral Degree	125(82)	No	98(63)

Note. n = Number of survey respondents. % = percentage of survey respondents.

Amount of Post Graduation Debt
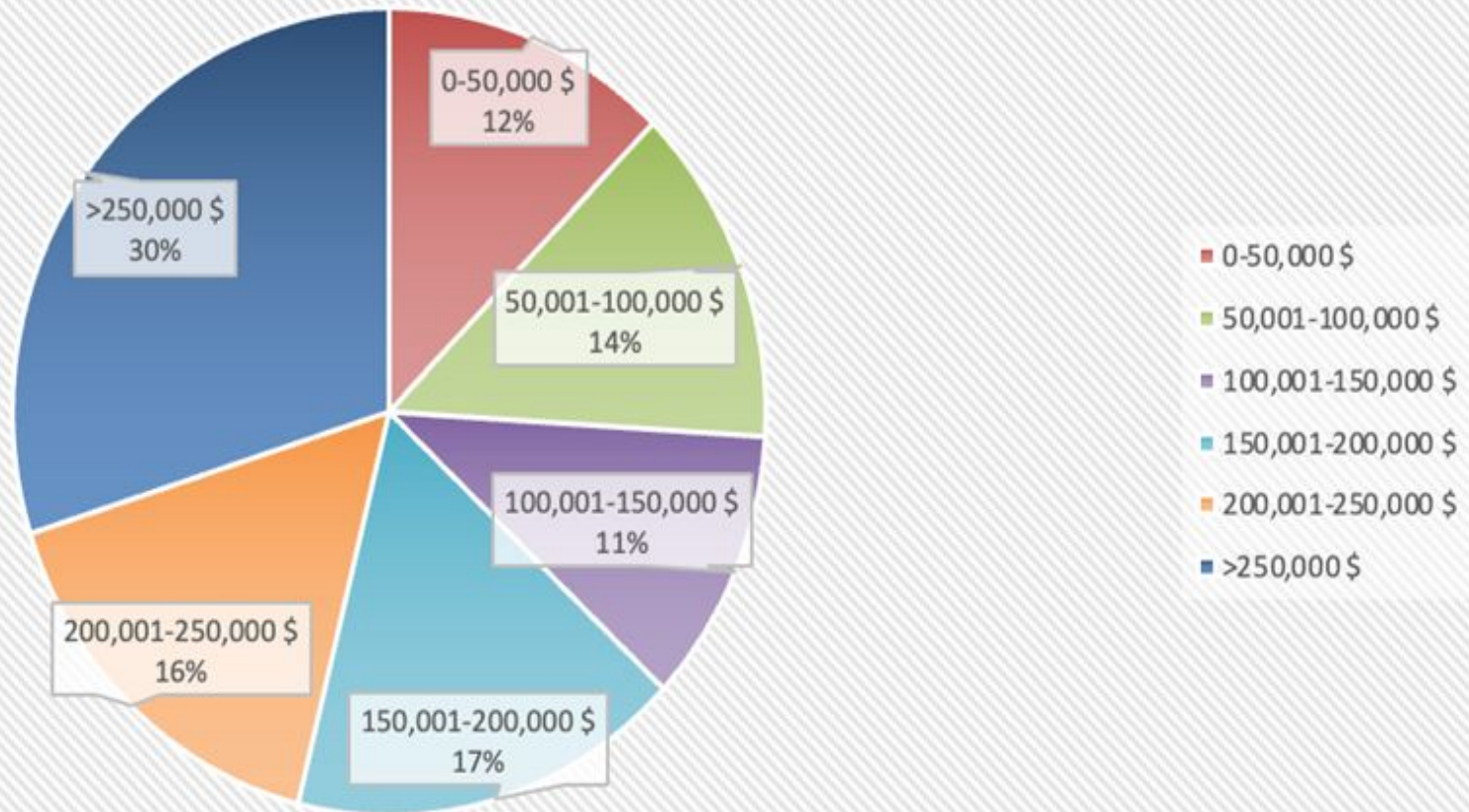
Defining Cheating

In your own words, what is your definition of cheating?	n (%)
Unauthorized material - ex.) Utilizing notes, phone, headphones	52 (46)
Dishonesty -ex.) Not a truthful pattern of behavior that violates honesty	21 (19)
In person cheating - ex.) Hiding notes on an in-person exam	4 (3.5)
Plagiarism - ex.) Using another's work without credit	20 (18)
Breaking academic integrity - ex.) Violates the code of conduct	9 (8)
Having an advantage - ex.) Utilizing resources that give an advantage	3 (2.6)
Sharing answers - ex.) Utilizing someone else's answers	2 (1.7)
N/A	1 (0.8)

Themes gathered from individualized definitions of cheating from 112 participants

Cheating Statements

Respondants Categorization of Cheating
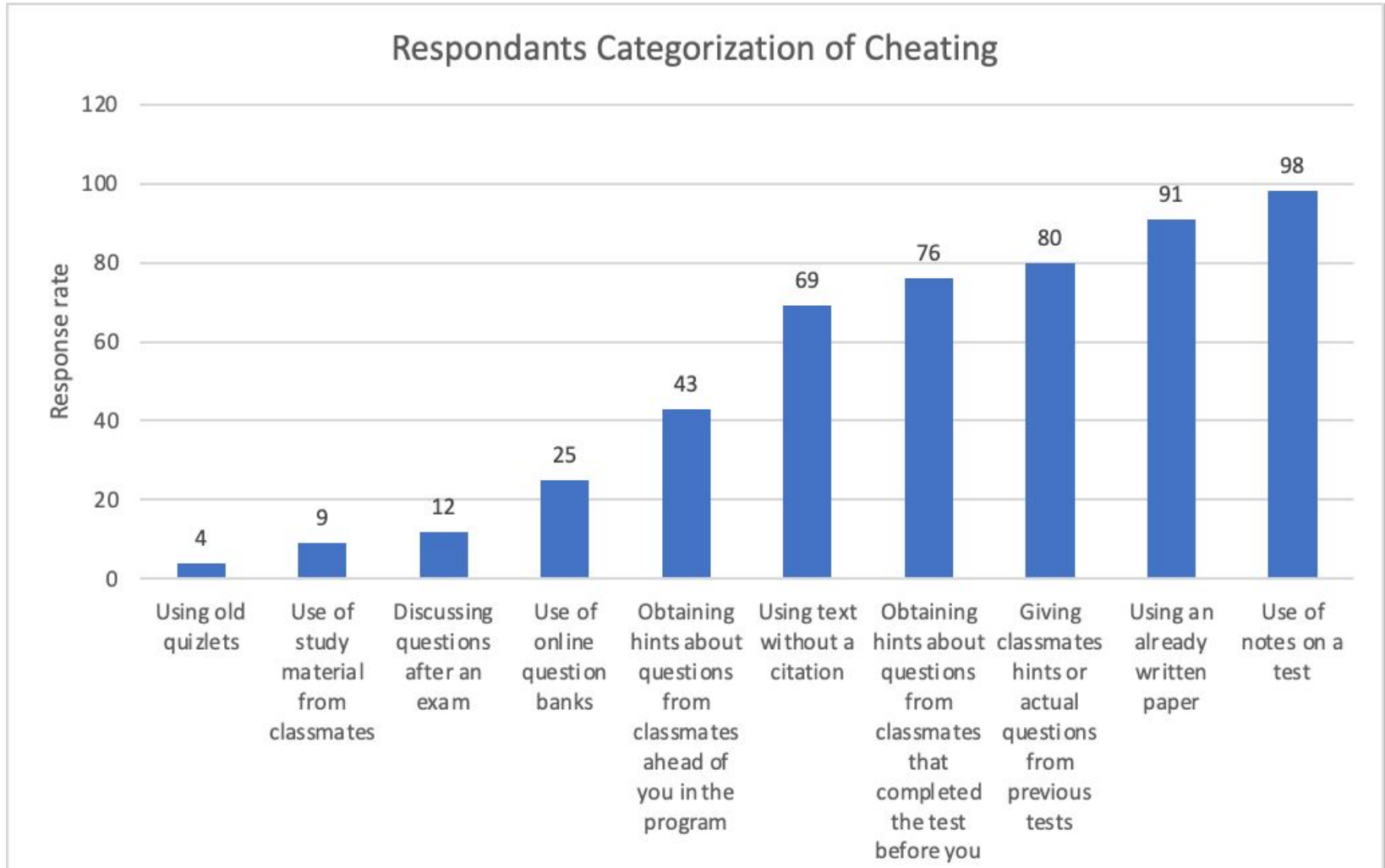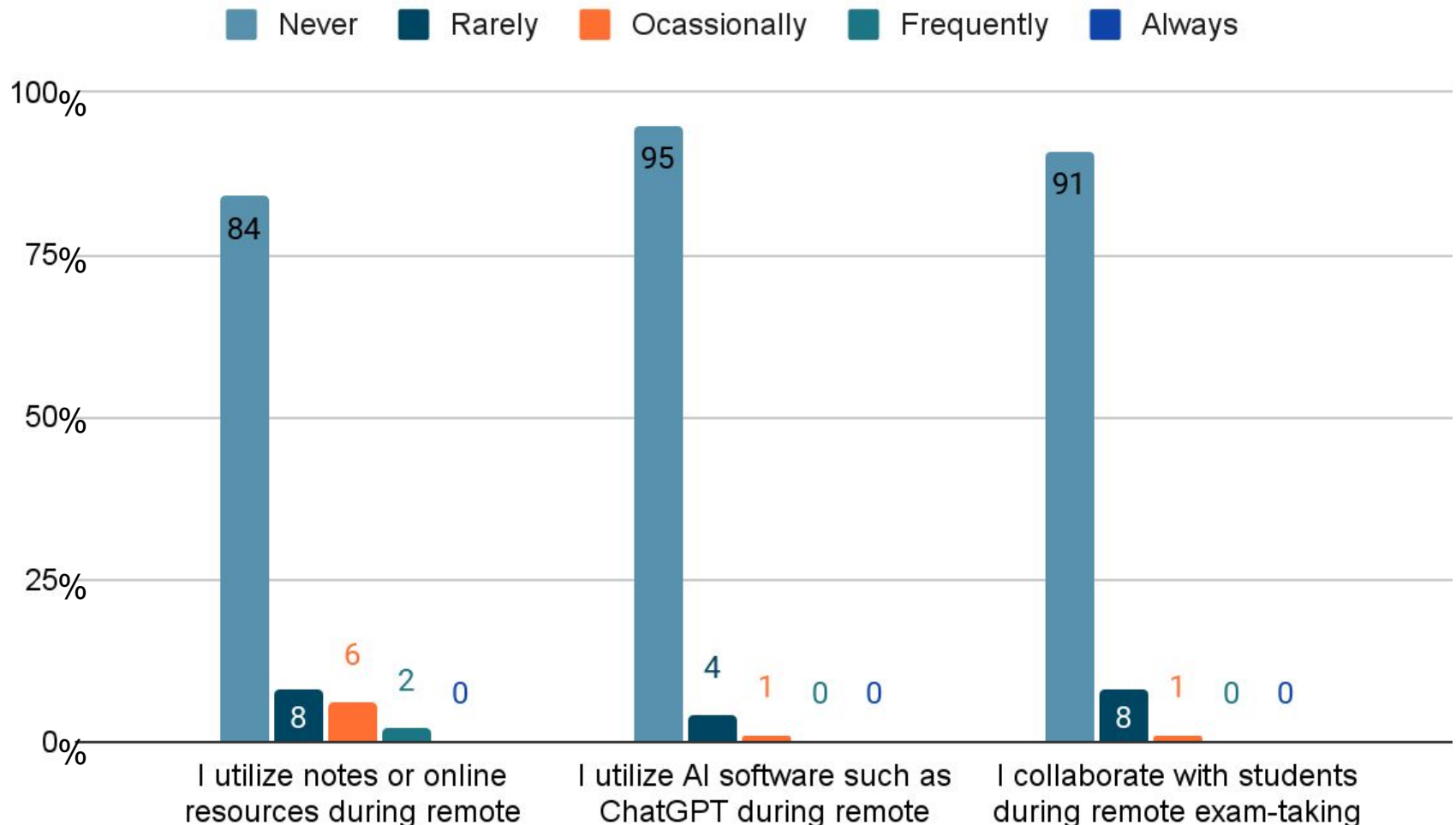
Defining Academic Integrity

In your own words, what is your definition of academic integrity?	n (%)
Following rules – eg: Abiding by rules to promote your best learning	7 (6.2)
Being honest – eg: Honesty and completing work in an ethical way	32 (28.3)
Doing what is right – eg: Following guidelines when no one is watching	5 (4.4)
Not cheating – eg: Putting in the time and not cutting corners or cheating	17 (15)
Doing your own work – eg: Completing your own original work without assistance	46 (40.7)
Statements that are **opposite of Academic Integrity** – eg: Cheating / looking up answers on an exam	5 (4.4)

Themes gathered from individualized definitions of academic integrity from 112 participants

Reports of Personal and Known Academic Integrity Violations

Response to Violations	Yes (%)	No (%)
Since the COVID-19 pandemic, I have violated academic integrity when I otherwise would not have.	9.7%	90.3%
In the past, I have taken and used information from another student to complete a quiz or exam.	15.9%	84.1%
In the past, I have taken exam notes with to pass on to other students.	2.7%	97.3%
I personally know someone who has cheated on an exam in my program	**35.4%**	64.6%
I personally know someone who has copied or plagiarized a paper in my program	15%	85%
In the past, I have committed acts of academic dishonesty even if I have not been caught or disciplined	**21.2%**	78.8%

Academic Integrity Violations

Academic Perceptions and Experiences
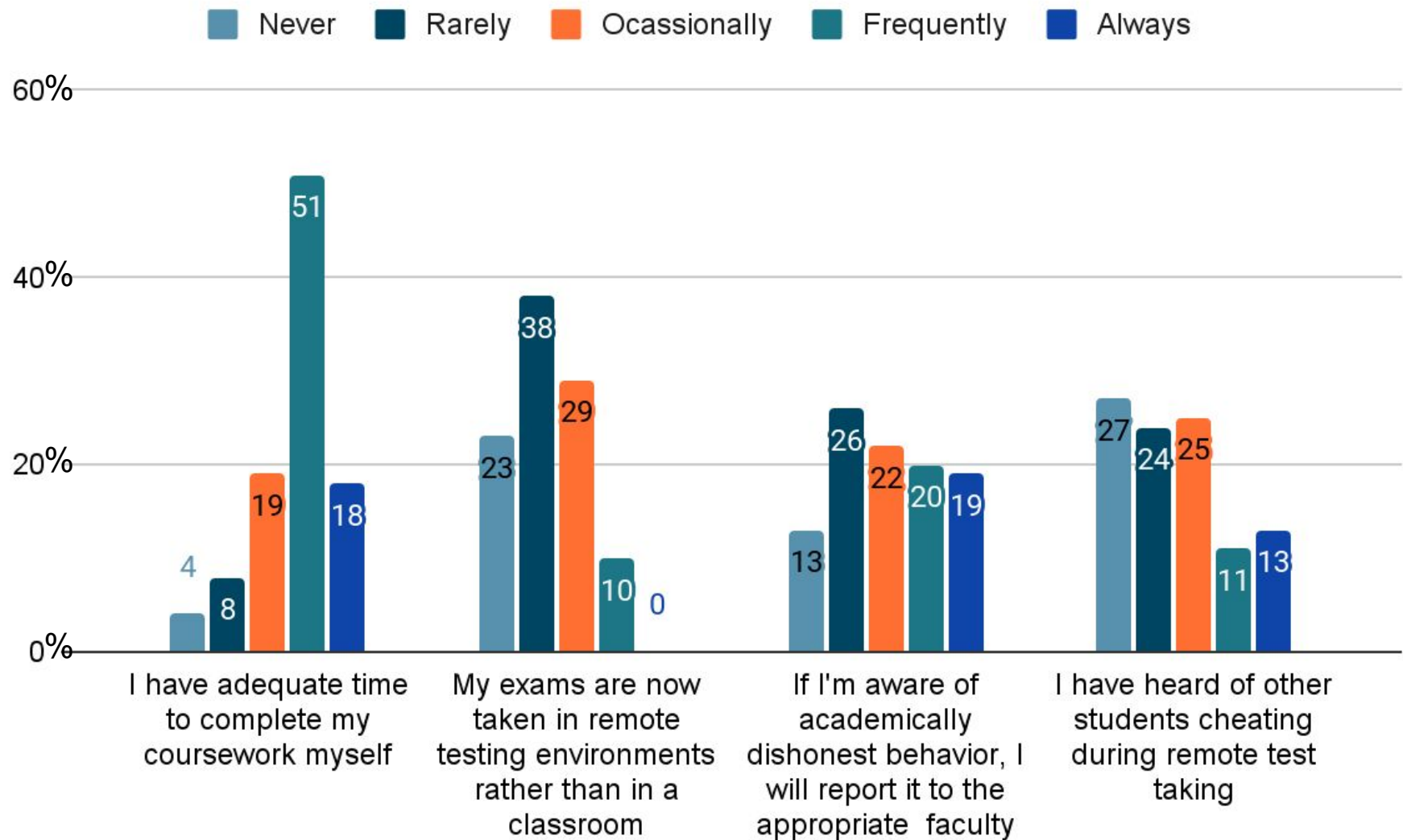
Student Perceptions of Integrity, Cheating, and Proctoring Software

- **How is academic integrity defined by graduate students in the medical profession?**
  - Predominant theme captured by students: "doing your own work" and "being honest"
  - As well as "working independently" thus expressing the value students place on individual effort and responsibility
  - Notable themes include "following the rules," "doing what is right," and "not cheating"
- **What are potential motivators for violating academic integrity?**
  - Students feel a substantial pressure to succeed in their program. Students also agree the stress of remote test taking could lead to academically dishonest behavior.
  - Students' perception around the ease of cheating and lack of methods to prevent cheating in a remote environment.
- **How prevalent are violations of academic integrity?**
  - 21.2% of respondents have engaged in dishonest academic behavior, even if they were not caught or disciplined.
  - 35.4% knew someone who had cheated on an exam.
  - 9.7% of respondents admitted to violating academic integrity since the COVID-19 pandemic when they otherwise would not have.
- **How have remote learning and AI affected academic integrity?**
  - Students agree that they are still able to cheat with remote proctoring.
  - Students agree that it's easier to cheat in online courses.
  - **95% of students reported "never" utilizing artificial intelligence software such as ChatGPT during remote exam-taking.**
- **What type of detection software is used?**
  - 95% of respondents selected "Exam Soft" as their proctoring technology. Respondents were asked what type of plagiarism software their programs used, **58% said "Turn It In"** and 42% said "other programs."

Discussion

- Clear guidelines and standardization regarding artificial intelligence software needs to be developed surrounding student utilization
  - Conflicting data was gathered when asking students whether they used artificial intelligence software
    - A majority of students reported never using software like ChatGPT during remote-exam taking
    - However, there were a number of students who agree that using ChatGPT in open book/note exams is acceptable

Discussion

- Students have a strong sense of academic integrity
  - However, students feel current remote proctoring methods are not sufficient

  - Integrity is lacking among students within the remote/hybrid learning environment, guidelines should be established to adjust pedagogical approaches by instructors

  - Students do not have an overall clear understanding of all areas that can be classified as cheating and academic dishonesty

Discussion

○ When compared to the study by Kantor and Greenwald (2022), students remain conflicted when reporting classmates' academic dishonest behavior.

○ Kadayam et al. (2023) determined that the only factor significantly ($p < 0.0001$) associated with cheating was preceding cheating behavior.

○ There was a significant difference ($p<.001$) in copying answers from others during a virtual exam (M=1.45, SD=1.013) compared to an in-person (M=1.17, SD=.410) exam (Beinschroth et al., 2023). Additionally, students were more likely to collaborate with other students during online exams and individual assignments compared to in-person.

Limitations

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                    Limitations
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   ┌─────────────────┐          ┌─────────────────┐
   │ Internal Validity│          │ External Validity│
   └────────┬─────────┘          └────────┬─────────┘
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│Self Report│ │  Social  │      │Generaliza-│ │Prior Study│
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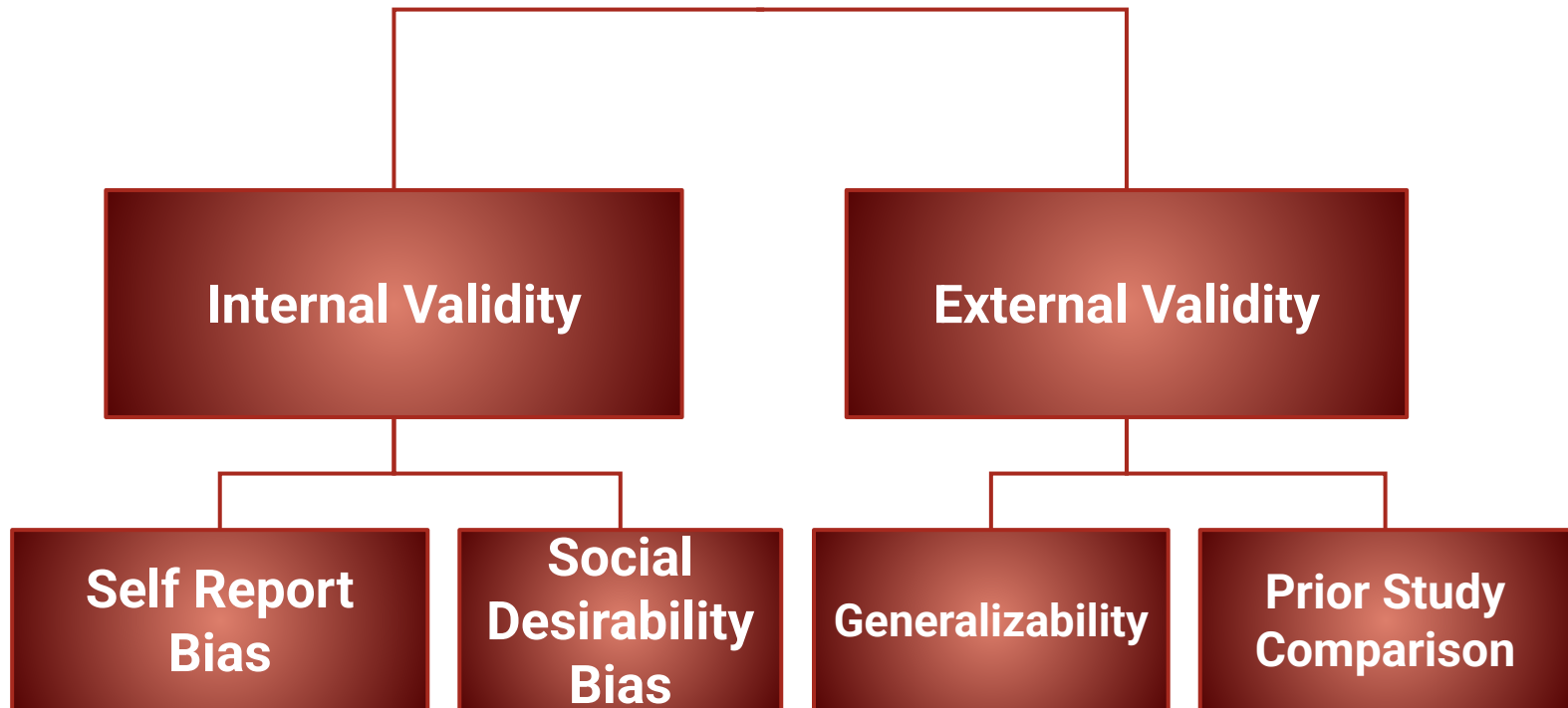
Conclusion

- Students reported a strong sense of academic integrity and personal understanding of cheating. In addition, students report little attempt to break academic integrity.

- However, students failed to accurately categorize all areas of potential academic dishonesty.

- These findings indicate there is an educational need among students at Rosalind Franklin University regarding behaviors that constitute a violation of academic integrity

- A deeper understanding of how individual programs coordinate remote testing can uncover ways to improve test-taking delivery. In addition, trialing alternative ways to deliver remote exams should be considered for future research.

What Should Universities be Doing?

- Exam integrity should be continuously evaluated based on incidence and technological advances
- Mandatory workshops and ongoing awareness of academic dishonesty and its consequences may deter students from taking such risks
- AI detection and policies
  - AI Detection software not highly effective
  - Currently, there are no AI policies in the RFU Handbook
  - The addition of AI policies may deter students from utilizing softwares such as ChatGPT

Honesty is the best policy!

Multi-Institutional Research is Needed to:

Further understand student perceptions

Identify stressors behind remote testing

Determine ways to mitigate cheating

References