

# Evaluating and Improving the Mental Wellness of Pharmacy Students At the University of Houston College of Pharmacy

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## Background

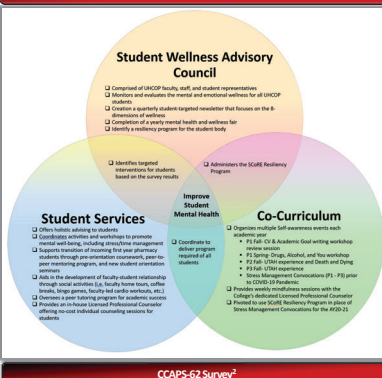
- The COVID-19 pandemic has been associated with many mental health challenges including the rise of anxiety and depression in U.S. adults.<sup>1</sup>
- These mental health difficulties appear to be more prevalent in young adults aged 18-29 years.<sup>1</sup> This age range encompasses a majority of pharmacy students who attend the University of Houston College of Pharmacy (UHCOP).
- Before the start of the COVID-19 pandemic, UHCOP established a priority to monitor the mental health of students. Biannual digital surveys were administered to allow the monitoring, detection, and reporting of mental health trends within the student body. When the COVID-19 pandemic occurred, the College was already tracking and implementing interventions in order to promote wellbeing and resilience.
- Despite state mandated stay-at-home orders, the UHCOP continued to provide students with an abundance of resources, virtual resilience programs, and opportunities to participate in wellness activities that were promoted by the Student Wellness Advisory Council, Student Services, and Co-Curriculum. These three areas within the UHCOP have collaborated to achieve the primary goal of wellbeing throughout the educational program.

## Objective

- Describe the three areas that support student mental health within the UHCOP:
- 1. Student Wellness Advisory Council (SWAC)**- SWAC continues to monitor, assess, and analyze the CCAPS-62 survey to evaluate the mental health of pharmacy students at the UHCOP.
- 2. Student Services**- Based off the results of our survey, Student Services identifies specific risk factors and addresses them utilizing targeted interventions throughout the year.
- 3. Co-Curriculum**- Co-Curriculum focuses on the elements related to the Self-awareness Domain, which was patterned after CAPE Domain 3 and 4 outcomes. In addition to stress management convocations, Co-Curriculum oversaw the implementation of the SoRE resiliency program that was distributed to all P1-P3 students.

## Methods

Figure 1. The Three Major Areas of the UHCOP that Share the Priority of Maintaining Student Mental Wellness



**CCAPS-62 Survey<sup>2</sup>**  
**CCAPS-62 Subscales:**

- Depression
- Generalized Anxiety
- Social Anxiety
- Academic Distress
- Eating Concerns
- Family Distress
- Hostility
- Substance Use

Please indicate how well each statement describes you, during the past 2 weeks:

0 (not at all like me) 1 2 3 4 (extremely like me)

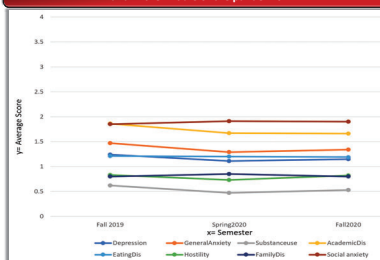
The CCAPS-62 is a standardized scale that was originally designed to assess the needs of college counseling centers and is ideal for assessing pharmacy students from a multidimensional approach.<sup>2</sup> The survey results were measured using a retrospective study to evaluate the mental wellness of P1-P3 students with 305 in Fall 2019, 238 in Spring 2020, and 150 in Fall 2020.

## Score (Student Curriculum on Resilience Education) Resiliency Program<sup>3</sup>

- Unit 1 of the SCORE program goes into detail on resilience and gives students the opportunity to reflect on resiliency strengths and areas for improvement.
- Unit 2 goes into the details about life events, understanding stress, specific thinking styles, and how to alter negative thoughts surrounding stress.
- Unit 3 focuses on social connections and its importance in everyday life.
- Unit 4 of the program provides information on self-care, which relates to the activities that improve or restore physical, mental, or emotional health.
- Unit 5 is the last unit that focuses on goal settings.

## Results

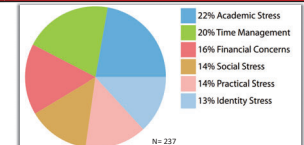
Figure 2. Trends of all CCAPS-62 categories pre-pandemic, at the beginning, and in the middle of the pandemic



- Using the ANOVA test to compare Fall 2019 (pre-pandemic), Spring 2020 (at the start of the pandemic), and Fall 2020 data (middle of the pandemic), it appears that there was not a significant difference in the students' overall mental health.
- Despite the national rise of mental health related difficulties, the UHCOP students' general mental health scores remained stable.
- The disparity between student mental health outcomes and the national average could be attributed to the protective measures implemented by the SWAC, Student Services, and Co-Curriculum.

## Results cont.

Figure 3. SoRE Program- Frequently Experienced Stressors



## Conclusion

- At this time, there is a lack of data surrounding pharmacy student's mental wellness before, at the start, and during the pandemic at both the local and national level.
- Few studies have looked at pharmacy student's overall mental wellness specifically using validated testing scales.
- The SWAC, Student Services, and Co-Curriculum have aimed their efforts to collaborate and promote a cultural shift of promoting mental health awareness and decreasing mental health stigma throughout the entire college of pharmacy.
- The hope remains that through continued concerted efforts, the UHCOP can further address the overall well-being and performance of their students.

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- Student Curriculum on Resilience Education (SCORE). Available at: <https://www.scoreforcollege.org/programoverview>

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# Using Alderfer's ERG Theory to Identify Predictors of Generalized Anxiety Symptoms among Pharmacy Students in Response to the COVID-19 Pandemic

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## BACKGROUND

- Graduate students are six times more likely to experience anxiety when compared to the general population and Doctor of Pharmacy (PharmD) students are at an increased risk of anxiety compared to other healthcare professional students.<sup>1</sup>
- Anxiety can impact student learning, psychological well-being, ability to provide patient care, and progression in their career.
- Pharmacy schools have implemented wellness programs to decrease student stress and anxiety, however the need for augmented and more focused interventions are dire since the COVID-19 pandemic has introduced new stressors.
- The CCAPS-62 survey is a validated tool used to assess psychological symptoms, included those associated with GA.<sup>2</sup>
- Alderfer's Existence, Relatedness, and Growth (ERG) theory can elucidate which unmet needs students are lacking and associated with higher levels of Generalized Anxiety (GA) symptoms.

Figure 1. Alderfer's Existence, Relatedness, Growth Theory Overview

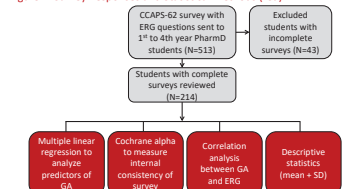


## OBJECTIVE

- To explore the prevalence of GA among PharmD students during COVID-19 using CCAPS-62 clinical tool and to elucidate which unsatisfied ERG needs during the COVID-19 pandemic are predictive of higher levels of GA symptoms.

## METHODS

Figure 2. Survey Responses and Statistical Methods (red)



- This study was a cross-sectional, single center, survey conducted from October 2020 to January 2021.

Table 1. Student Demographic Data

Variable	Respondents (n=214)
Current standing in the PharmD curriculum	
P1, n (%)	58 (27.1)
P2, n (%)	67 (31.3)
P3, n (%)	38 (17.8)
P4, n (%)	51 (23.8)
Females, n (%)	148 (69.2)
Ethnicity	
Asian, n (%)	103 (48.1)
White, n (%)	58 (27.1)
African American, n (%)	18 (8.4)
Latin, n (%)	18 (8.4)
Other, n (%)	8 (3.7)
Multiracial, n (%)	9 (4.2)
Married, n (%)	38 (17.8)
Employed, n (%)	124 (57.9)
How often do you exercise	
Occasionally, n (%)	105 (49.1)
2-3 times per week, n (%)	54 (25.2)
Never, n (%)	40 (18.7)
Everyday, n (%)	15 (7.0)

Table 2. Mean Scores per Category of Survey Questions

Mean (SD) of Scores per Category of Survey Questions	
Anxiety	1.28 (0.71)
Existence	1.89 (0.95)
Relatedness	1.78 (0.79)
Growth	1.96 (1.10)

- The scores to each category range from zero to four. Zero indicates no symptoms of generalized anxiety and 4 indicates highest symptoms of generalized anxiety.
- A score of zero on the Existence, Relatedness, and Growth questions indicates no deficiency or needs in that specific category and a score of 4 would be indicative of a large need or deficiency in that category.

Table 3. Measure of Internal Consistency per Category of Survey Questions

Cronbach Coefficient Alpha [Standardized]	
Anxiety	0.879
Existence	0.650
Relatedness	0.754
Growth	0.790

- Anxiety survey questions had good internal consistency.
- Relatedness and Growth survey question had acceptable internal consistency.
- Existence survey questions had unreliable internal consistency.

Table 4. Multiple Linear Regression to Predict Generalized Anxiety (R<sup>2</sup>=0.46)

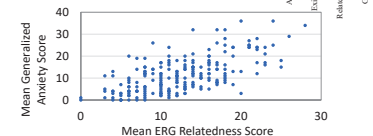
Variable	Parameter Estimate	Standard Error	t-value	P-value
Existence	0.123	0.049	2.47	0.0143
Relatedness	0.562	0.072	7.77	<0.0001
Growth	0.217	0.070	3.10	0.0022

## RESULTS

Table 4. Pearson's Correlation

Variable	Correlation Coefficient	P-value
Existence	0.295	<0.0001
Relatedness	0.646	<0.0001
Growth	0.523	<0.0001

Fig. 5. Heat map Correlation



- Relatedness need was most correlated with generalized anxiety symptoms.

## CONCLUSIONS

- Interventions aimed at fulfilling relatedness needs may be beneficial in decreasing generalized anxiety symptoms among PharmD students.
- Future steps will aim to create a program for students that target increasing social connectedness and psychosocial support among students in a virtual setting, which may include establishing virtual community meeting chats, games, and group counseling sessions dedicated to building and maintaining peer to peer interactions.

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# Incorporation of a Student Resilience Program into e-Orientation to Improve Stress, Self-Care, and Resilience

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## Take Away Points

- Implementing the self-paced, online SCoRE program to first-year PharmD students aided in the development of resilience and self-care strategies.
- 83.8% of students felt that this program may have an impact on their long-term pharmacy career.
- The program did not see a difference in students' PSS-10 scores, but this may be due to the protective mechanism of the program.
- 86.5% reported that the SCoRE Program met their expectations.
- 79.6% of students would recommend this program to another student.
- 87.6% of students preferred completing the program prior to starting the PharmD curriculum.

## About the SCoRE Program

- A resilience education program that helps students cope with college life in personal, social, and academic challenges.
- Range of instructional elements such as online self-reflections, questionnaires, practice activities, and personalized reports.
- Program consists of 5 units with 3 lessons in each unit.



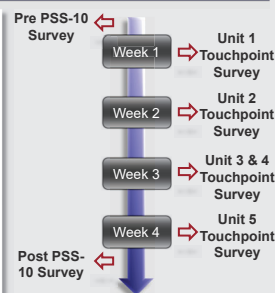
## Objectives

- To implement a resilience program for first-year pharmacy students to build stress management, resilience, and self-care strategies that can be used as a part of their daily routine throughout their pharmacy career.

## Methods

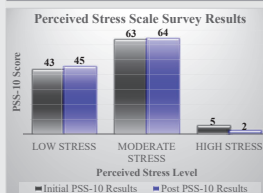
### Study Design

- First-year PharmD students completed five units of the SCoRE Program online over a four-week period during their e-orientation from July to August 2020, prior to pharmacy school entry.
- Anonymous and voluntarily completion of the Perceived Stress Scale (PSS-10) pre- and post-program surveys to measure program's impact on students perceived stress levels.
- Students were administered touchpoint surveys evaluating their level of resilience and self-care strategies following completion of respective units.



## Results

### PSS-10 Survey Results



- 111 students completed the pre-and post-PSS-10 surveys.
- No statistically significant difference in PSS-10 results.

### Touchpoint Survey Results

- After student completion of the SCoRE Program respective units:
- 99% rated their overall stress in the lower 33<sup>rd</sup> percentile.
  - 92.4% ranked their overall response to stress as either low or moderate.
  - 72.6% reported a high level of resilience compared to 27.3% who reported a moderate level.
  - 88.8% reported a better of understanding of resilience strategies.
  - 85% reported having high adaptive resilience style.
  - 97.2% reported having either moderate or high self-care strategies.

## Results (cont.)

### Additional Student Comments

- | Pros  | Cons   |
|---|--|
| <ul style="list-style-type: none"> <li>Life skills/coping strategies</li> <li>Better understanding of resilience</li> <li>Self-reflection</li> <li>Informative</li> <li>Good content</li> </ul> | <ul style="list-style-type: none"> <li>Older material</li> <li>Tailored to undergraduate students</li> <li>Program units excessive and time consuming</li> </ul> |

## Discussion

- No difference in PSS-10 scores observed following completion of the program.
- A possible reason for this finding is that students may have lower stress levels in the summer.
- Another explanation is that the SCoRE program served as a protective mechanism as students' stress levels increased prior to the start of classes.

## Disclosures

- The authors of this research project have no disclosures relating to financial or personal relationships with commercial entities involved in this project.

## Acknowledgments

- Melissa DeRosier, PhD Clinical Psychologist, Founder and CEO of 3C Institute

## References

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- Student Curriculum on Education Resilience. 3C Institute. <https://www.scoreforcollege.org/spc>



# Assessment of Mental Health Stigma in Pharmacy Students After Implementation of a Mental Health Focused Health Fair

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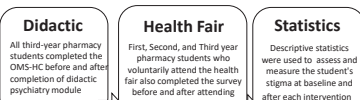
## Background

- Mental Health (MH) stigma by pharmacists can be especially damaging to patients and may inadvertently affect care
- As part of the pharmacy curriculum, students complete didactic psychiatry modules to learn how to properly treat patients with MH disorders, but the curriculum does not address strategies for changing MH attitudes and perceptions regarding MH stigma
- MH related health fairs may help address these misconceptions about mental illnesses by providing resources and education on MH stigma
- This study provides new data on the impact of MH fairs compared to didactic coursework on reducing pharmacy student MH stigma

## Objectives

- Assess the level of pharmacy student's MH stigma using the Opening Minds Scale for Health Care Providers (OMS-HC), before and after completion of a didactic psychiatry module
- Assess the level of pharmacy student's MH stigma using the OMS-HC, before and after completion of a MH fair
- Identify additional areas in the pharmacy curriculum that can help educate students on how to reduce MH stigma

## Methods



### Opening Minds Stigma Scale for Health Care Providers

#### Factor 1: Attitudes of Health Care Providers Towards People With Mental Illnesses

- I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness
- Despite my professional beliefs, I have negative reactions towards people who have mental illness
- There is little I can do to help people with mental illness
- More than half of people with mental illness don't try hard enough to get better
- Healthcare providers do not need to be advocates for people with mental illness
- I struggle to feel compassion for a person with a mental illness

#### Factor 2: Disclosure/Help-Seeking

- If I were under treatment for a mental illness, I would not disclose this to any of my colleagues
- I would see myself as weak if I had a mental illness and could not fix it myself
- I would be reluctant to seek help if I had a mental illness
- If I had a mental illness, I would tell my friends

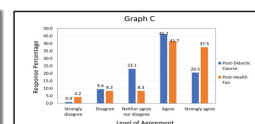
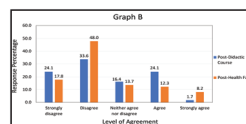
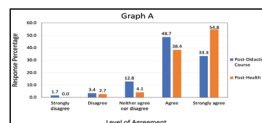
#### Factor 3: Social Distance

- If a colleague with whom I work told me they had a mental illness, I would be just as willing to work with him/her
- Employers should hire a person with a managed mental illness if he/she is the best person for the job
- I would still go to a physician if I knew that the physician had been treated for a mental illness
- I would not want a person with a mental illness, even if it were appropriately managed, to work with children
- I would not mind if a person with a mental illness lived next door to me

## Results

Comparison of Pharmacy Students' Responses to MH Survey Questions Post-didactic Course and Post-health Fair Intervention

Question	Level of Agreement	Post-Didactic Course		Post-Health Fair		P-value
		N (118)	% (100%)	N (74)	% (100%)	
If a colleague with whom I work told me they had a mental illness, I would be just as willing to work with him/her	Strongly disagree	2	1.7	0	0.0	0.0209*
	Disagree	4	3.4	2	2.7	
	Neither agree nor disagree	15	12.8	3	4.1	
	Agree	57	48.7	28	38.4	
	Strongly agree	39	33.3	40	54.8	
I would be reluctant to seek help if I had a mental illness	Strongly disagree	28	24.1	13	17.8	0.0261*
	Disagree	39	33.6	35	48.0	
	Neither agree nor disagree	19	16.4	10	13.7	
	Agree	28	24.1	9	12.3	
	Strongly agree	2	1.7	6	8.2	
I would not mind if a person with a mental illness lived next door to me	Strongly disagree	1	0.9	3	4.2	0.0119*
	Disagree	11	9.4	6	8.3	
	Neither agree nor disagree	27	23.1	6	8.3	
	Agree	54	46.2	30	41.7	
	Strongly agree	24	20.5	27	37.5	



## Originality of Project

- Several studies exist assessing the impact of MH stigma among healthcare providers towards those with mental illness; however, few studies specifically target eradicating MH stigma among pharmacy students
- Student-led health fairs generally contain educational booths pertaining to various disease states, but this event focused exclusively on providing booths to educate about mental illnesses, current treatment options, and discuss mental health resources available to students all with the intent of eradicating stigma.
- To our knowledge, a health fair specifically focused on anti-stigma interventions has never been implemented by a college of pharmacy

## Significance of Project

- This project is significant to colleges of pharmacy because it provides data to help faculty/staff recognize stigmatizing behaviors and attitudes among students and implement programs to address it
- This study may lead to changes to psychiatry modules in the curriculum, such as adding a mental health fair, in order to effectively decrease MH stigma
- We hope this project will encourage other institutions of higher education to incorporate anti-stigma interventions into its didactic curriculum

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# Diversity/Life Experience Scores' Impact on the Demographic Makeup of Students in a Pharmacy School Program

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## Background

- Holistic scoring during the admissions process is encouraged to ensure a quality, diverse applicant pool that accounts for non-cognitive traits of "maturity, motivation, determination, and resilience".
- Incorporation of a life experiences and diversity score into the holistic score may help further diversify the student population.
- Generating an algorithm to credit prospective students for aspects of diversity is difficult to define and quantify. Generally, algorithms weighted for non-cognitive skills or traits are institution-specific and do not overtly take into account racial and ethnic diversity.

Figure 1. University of Houston Holistic Scoring Overview



## Objective

- To evaluate changes in the demographic makeup of students that applied, interviewed, and matriculated at University of Houston College of Pharmacy (UHCOP) after implementation of the life experiences and diversity scoring tools.

## Methods

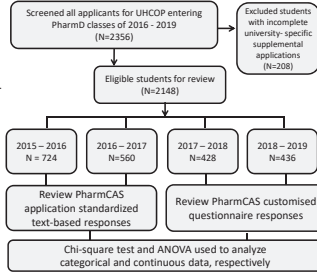
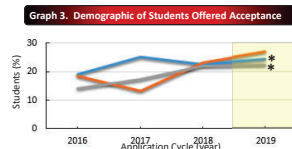
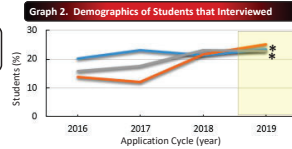
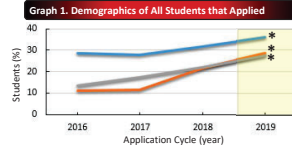


Table 1. Class Profile of Students that Matriculated into UHCOP's PharmD program

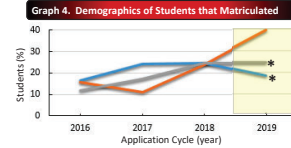
	2016	2017	2018	2019
Class size (No.)	128	128	130	126
Gender, female (%)	72	60	72	64
Age (Mean)	23	22	23	23
Pre-pharmacy GPA (Mean)	3.59	3.53	3.50	3.51
Main/Science GPA (Mean)	3.46	3.42	3.38	3.42
PCAT Composite Percentile (Mean)*	86	76	76	79
Obtained Previous Degree (%)	51.6	45.2	48.1	53.2

\*Statistically significant differences, calculated by ANOVA, p-value <0.01

## Results



## Results (Continued)



**Results Key**  
 — Underrepresented minorities (URM), %  
 — Socioeconomically disadvantaged (SD), %  
 — First-generation college students (FG), %  
 \* Statistically significant  
 Holistic score applied

## Discussion

- Holistic scoring may extend opportunities to minority groups to aid in reducing educational inequalities and increasing social mobility after graduation<sup>2,4</sup>.
- After formally implementing life experiences and diversity scoring tools in 2019, FG and SD students significantly increased in those who applied, interviewed, received offers, and matriculated compared to 2016 and 2017 (P < 0.05).
- First-generation college and socioeconomically disadvantaged students significantly increased in those who applied, interviewed, received offers, and matriculated after holistic scoring components were considered in 2018 and 2019 (P < 0.05).
- Significantly more URM applied to the 2018 (31.5%) and 2019 (35.8%) cycle vs. 2016 (28.7%) and 2017 (27.9%) (P < 0.05), which reflects improved recruiting processes and efforts.

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# The Impact of Pharmacy Student-Led Opioid Overdose Prevention and Response Education

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## Background

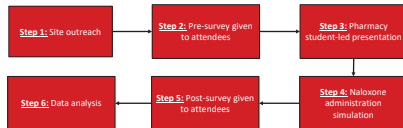
- The Centers for Disease Control and Prevention reported in 2017 that 47,600 drug overdose deaths involved opioids, representing 67.8% of the total deaths due to drug overdoses that year.
- In 2017, the U.S. Department of Health and Human Services declared a public health emergency to combat the current opioid epidemic crisis.
- Studies have shown a positive correlation between education and training on opioid overdose and the ability to effectively recognize and respond to an opioid overdose.
- Pharmacy students can play a significant role in educating their community on the opioid overdose epidemic, overdose risk factors, signs and symptoms of overdose, how to effectively respond to an overdose, and the role of the opioid-reversal agent, naloxone.

## Objectives

- To determine the impact of pharmacy student-led opioid overdose prevention and naloxone education on perceptions about naloxone and the ability to recognize and respond to an opioid overdose

## Methods

- Retrospective cohort study
- All pharmacy student presenters underwent a certification process



- 5 item likert-scale utilized to assess 9 different constructs

	1	2	3	4	5
Strongly Disagree	○	○	○	○	○
Strongly Agree	○	○	○	○	○

## Results

Table 1. Pre-Survey Naloxone Training, Use, and Standing Order Knowledge Assessment (High School Students)

Construct	Label	Frequency	Percent
Naloxone education/training			
Yes	Have you received education/training on naloxone before?	8	3.5
No		178	79.1
Don't know		42	18.4
Have naloxone during education/training			
Yes	Have you used/seen someone use naloxone before in a real-life scenario?	6	2.6
No		151	67.9
Don't know		67	29.4
Knowledge of pharmacy with a standing order for naloxone			
Yes	Do you have a pharmacy that has a standing order for naloxone?	18	6.1
No		132	59.5
Don't know		82	36.9

Table 1:  
Out of 228 high school students, 78.1% (n=178) did not receive prior education or training, 67.9% (n=151) did not use or see someone use naloxone, and 7.7% (n=14) reported they knew of a pharmacy with a standing order for naloxone

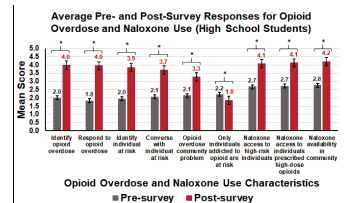


Figure 1:  
There was a statistically significant (p<0.05) increase in the mean score for eight Likert scale items and a statistically significant decrease for one Likert scale item

Table 2. Post-Survey Naloxone Training, Use, and Standing Order Knowledge Assessment (Santa Maria)

Construct	Label	Frequency	Percent
Naloxone education/training			
Yes	Have you received education/training on naloxone before?	9	13.8
No		48	73.9
Don't know		23	35.4
Have naloxone during education/training			
Yes	Have you used/seen someone use naloxone before in a real-life scenario?	3	4.6
No		42	64.6
Don't know		23	35.4
Knowledge of pharmacy with a standing order for naloxone			
Yes	Do you have a pharmacy that has a standing order for naloxone?	4	6.1
No		34	51.5
Don't know		38	58.9

Table 2:  
Out of 65 respondents, 70.8% (n=46) did not receive prior education or training, 64.6% (n=42) did not use or see someone use naloxone, and 7.7% (n=5) reported they knew of a pharmacy with a standing order for naloxone

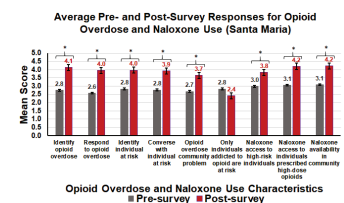


Figure 2:  
There was a statistically significant (p<0.05) increase in the mean score for eight of the Likert scale items, and a decrease in the mean score regarding the belief that only individuals addicted to opioids are at risk for opioid overdose

## Discussion

- To date, our study is the first study to report the effect of opioid overdose education to staff at a residential and outpatient substance abuse treatment center and across all high school grade levels.
- Pharmacy student-led educational presentations significantly increased the ability to recognize and respond to an opioid overdose and perceptions about naloxone in both high school students and residential and outpatient substance abuse treatment center staff.
- In each cohort, there was a statistically significant change in mean scores between the pre-survey and post-survey responses for most of the constructs assessed.
- Limitations to this retrospective cohort study include variability of sample size for each cohort and inability to directly match pre- and post-survey response of participant.
- Further studies are needed to assess retention rates and the ability to apply the information learned to reverse an opioid overdose, if encountered.

## Future Plans

- Assess knowledge retention through follow-up surveys
- Assess the number of participants who applied the information obtained through pharmacy student-led presentations to reverse an opioid overdose
- Directly compare individual pre- and post-survey responses
- Analyze survey responses between different cohorts

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## Evaluating and Improving the Mental Wellness of Pharmacy Students At the University of Houston College of Pharmacy

Austin De La Cruz, PharmD, BCPP, Rachia Kabbani, Pharm.D. Candidate, Paige Pitman Pharm.D., MBA, Hua Chen MD, Ph.D.  
University of Houston College of Pharmacy (UHCOP), Houston, TX

### Background

- Mental health difficulties in pharmacy students are often unrecognized and under-reported, preventing them from receiving adequate support and care
- Signs and symptoms of poor mental health can be difficult to detect in pharmacy students due to mental health stigma and fears of how their peers, faculty, and/or family might perceive them
- Students may not be properly educated on mental health literacy, creating the belief that mental health issues do not exist or that people need to just get over it
- Resources may be limited for students, allowing those who have a mental health related concern to suffer unaided, in silence
- Mental health development needs to be a priority in all pharmacy school programs so that students who are improving their mental wellness can perform to the best of their abilities and support their patients with the highest level of quality care

### Objectives

- Assess the mental health of pharmacy students at the University of Houston College of Pharmacy
- Analyze the results of a mental health assessment and pinpoint university-specific risk factors
- Formulate a Student Wellness Committee to address risk factors and provide appropriate interventions
- Educate students on mental health to improve literacy and eradicate stigma
- Create a yearly publication to discuss results of each survey to provide awareness to rest of the University of Houston College of Pharmacy

### Methods

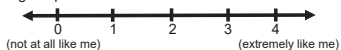
#### Mental Health Survey

- What class are you?
- What is your gender?
- What is your ethnicity?
- Are you married?
- Do you have a job?
- How often do you exercise?
- How well can you handle stress on a scale of 0 (not well) – 5 (Very well)?
- Do you feel that UHCOP provides support for your mental well being?
- How willing are you to reach out to the UHCOP faculty/staff in regards to your mental health on a scale of 0 (not comfortable) – 5 (very comfortable)?

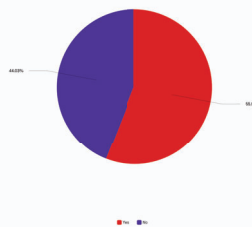
#### CCAPS-62 Subscales:

- Depression
- Generalized Anxiety
- Social Anxiety
- Academic Distress
- Eating Concerns
- Family Distress
- Hostility
- Substance Use

Please indicate how well each statement describes you, during the past 2 weeks:



Graph 1. Do you feel that UCHOP supports your mental wellbeing?



- Suspendisse purus mauris, viverra id mollis at, hendrerit ut libero. Aliquam odio mi, ultricies vitae auctor sed, tempor eu est. Quisque nibh nisi, hendrerit non ultricies vel, dignissim vitae.
- Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Vestibulum ut leo eros. Donec facilisis euismod orci, et rhoncus velit accumsan eu.

### Originality of Project

- At this time, there is a paucity of data nationwide surrounding Pharmacy student's overall mental wellness. The assessment of these matters is not required as a fundamental part of the University of Houston College of Pharmacy curriculum
- Few studies have looked at pharmacy student's overall mental wellness specifically using validated testing scales that were originally designed to assess the needs of college counseling centers

### Significance of Project

- This project will provide insight into the student's mental wellness and assist the faculty with developing strategies to improve the student's overall mental well-being
- We hope this project can provide sufficient data and results so that other healthcare professional programs can formulate their own Student Wellness Committee and begin student led-interventions to help their own students
- The outcome of this research project will be an important step forward in identifying the necessary pathways that will help improve the UHCOP's overall mental wellness

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## Description of a Newly Instituted Teaching Certificate Program

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### INTRODUCTION

- The North Florida/South Georgia Veterans Health System (NF/SG VHS) is the largest in the nation and trains 23 PGY-1 & PGY-2 residents and one pharmacy fellow.
- Teaching certificates are desirable for prospective pharmacy residents to prepare the individuals for future teaching responsibilities, although, sometimes few opportunities are available.
- The American College of Clinical Pharmacy Task Force published a white paper outlining recommended standards for pharmacy resident teaching experiences and suggested that a Teaching Certificate Program should be affiliated with a college of pharmacy or academic institution.
- As the largest integrated network of pharmacy residency programs, the Department of Veterans Affairs is in a unique position to offer a teaching certificate program that can draw from resources on a national scale.

### PURPOSE

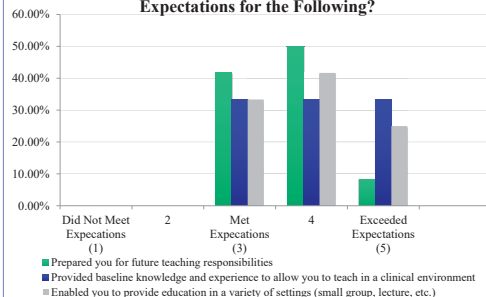
- As a result of the challenges posed by establishing and maintaining an affiliation with a college of pharmacy, the development of the NF/SG VHS Teaching Certificate Program would allow participants a guaranteed opportunity to obtain a teaching certificate and develop essential skills for precepting and teaching using standardized guidelines.
- The North Florida/South Georgia Teaching Certificate Program will lay the foundation for future teachers, equipping residents and fellows with the skills essential for becoming effective preceptors and educators.

### METHODS

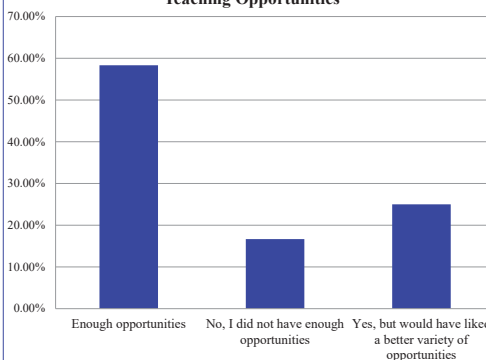
- The White Paper: Guidelines for a Teaching Certificate Program within a VHS has created a structure for the establishment of a successful teaching certificate program, which included expectations, requirements, and goals of the program.
- Eighteen pharmacy residents and one fellow were included in the first year of the program.
- Participants were expected to satisfy teaching and precepting requirements within the VHS, independent of a teaching university.
- Participants attended ten mandatory didactic and interactive seminars and completed pre-class assignments. Upon completion of the teaching certificate program, participants were administered surveys which focused on opportunities for improvement and outcomes of the teaching certificate.

### RESULTS

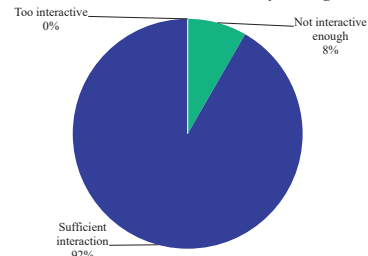
#### How Did The Teaching Certificate Meet your Expectations for the Following?



#### Teaching Opportunities



#### Seminar Interactivity Rating



### CONCLUSION

- The NF/SG VHS Teaching Certificate Program helped the residents and fellow to prepare for future teaching responsibilities while providing a strong foundation to teach in a variety of settings. Participants felt they were given the knowledge and experience to teach in a clinical environment.
- The format of this Teaching Certificate Program allowed for interactive seminars. Additionally, participants were able to document their teaching experiences and develop a unique teaching philosophy.
- This novel program demonstrated the feasibility of initiating a teaching certificate program with an adequate number of teaching opportunities in a variety of settings independent of a teaching university.
- Future improvements can be made by increasing the variety of teaching opportunities.

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**Disclaimer:** the contents do not represent the views of the U.S. Department of Veterans Affairs or the United States Government.  
**Disclosure:** The authors of this presentation have nothing to disclose



# Evaluation of Eligible Candidates for Clozapine Prescribing at the North Florida/South Georgia Veterans Health System

Austin De La Cruz, Pharm.D., Karrie Jones, Pharm.D., BCPS, BCPP  
North Florida/South Georgia Veterans Health System, Gainesville, FL



## BACKGROUND

- Clozapine has been shown to be an exceptional agent for patients with refractory schizophrenia, however, its use is often disregarded due to the availability of newer antipsychotics with less side effects and monitoring parameters.
- Local results showed that the North Florida/South Georgia Veterans Health System FY15Q3 prescribing rate of clozapine was 3.2%, which was below the national average of 4%. This appeared unchanged from FY15Q2 indicating a paucity of clozapine prescribing.
- According to the 2013 Veteran Health Administration (VHA) handbook on Mental Health, "Clozapine prescribing must be available to all veterans who may benefit from this agent. Except where it is medically contraindicated, all veterans must be offered clozapine after two failed trials of other antipsychotic medications. The patient's informed consent for clozapine treatment, their informed refusal of clozapine, or documentation of contraindications must be documented in the medical record."
- The 2015 Clozapine-Psychotropic Drug Safety Initiative (PDSI) Quality Improvement Measure was implemented nationwide within the VHA due to low clozapine prescribing practices.
- As part of clinical care and the National PDSI Quality Improvement measure, it is recommended that mental health pharmacists review the patient's chart and determine if clozapine therapy is an acceptable treatment option.
- Currently, there is no set method or formal note utilized by the mental health pharmacists to contact the provider in order to satisfy the requirements listed in the VHA Handbook of Mental Health or the PDSI Quality Improvement Measure.

## OBJECTIVES

- The Continuous Quality Improvement (CQI) project will determine whether a Pharmacy Clozapine Note Intervention is an effective means of increasing clozapine prescribing for individuals who meet pre-specified criteria.
- This CQI project will help ensure that all patients who meet the criteria for clozapine prescribing are being properly evaluated, based on existing VHA Handbook on Mental Health recommendations.

## Pharmacy Clozapine Note

Clozapine Chart Review for Psychotropic Drug Safety Initiative Quality Improvement:

After thorough chart review, it appears that the patient meets the criteria for clozapine prescribing and may be a potential candidate for clozapine therapy. Please see pre-specified clozapine criteria listed below.

If the patient is not tolerating their current antipsychotic regimen due to treatment emergent adverse effects or is not achieving symptom relief despite adequate dose titration, consider clozapine for future use.

Clozapine Criteria:

- YES NO  
( ) ( ) Indication of schizophrenia, suicide prevention in schizophrenia, or schizoaffective disorder  
( ) ( ) Treatment resistance (i.e. suboptimal response to adequate trial with three formulary antipsychotic agents)  
( ) ( ) Patient has not had a prescription for clozapine in the past 5 years  
( ) ( ) Patient had at least 1 outpatient encounter or at least 1 inpatient diagnosis in the past year  
( ) ( ) Absence of all Black Box Warnings and no prior history of the following:  
- Myocarditis  
- Cardiomyopathy  
- Seizure disorder  
- Respiratory or cardiac arrest  
- Clozapine induced severe neutropenia (absolute neutrophil count less than 500/mm<sup>3</sup>) or severe granulocytopenia  
- Dementia related psychosis  
- History (including family history) of long QT syndrome or QT prolongation  
- History of cardiac disease with electrolyte abnormalities  
- Uncompensated heart failure  
- Clinically significant cardiac arrhythmia  
( ) ( ) Absolute neutrophil count greater than or equal to 1500/m<sup>3</sup> or greater than or equal to 1000/m<sup>3</sup> for BEN (Benign Ethnic Neutropenia)  
( ) ( ) Absence of concomitant contraindicated medications (e.g. QT-interval prolongation agents, strong CYP 1A2, 2D, and 3A4 inducers/inhibitors)  
( ) ( ) Absence of previous hypersensitivity to clozapine (e.g. photosensitivity, vasculitis, erythema multiforme, or Stevens-Johnson syndrome)  
( ) ( ) Absence of limitations that may prevent the individual from routine lab monitoring

Number of antipsychotics tried:

Please refer to local Mental Health clinic pharmacist or Pharmacy Mental Health E-Consult service for any questions regarding clozapine initiation.

## METHODS

- There are currently 518 patients at North Florida/South Georgia VA who meet the VA criteria for clozapine.
- The patients are identified via the National PDSI dashboard, which lists individuals diagnosed with schizophrenia who have tried three or more antipsychotics, not including clozapine, in the past 5 years. It also includes individuals who are being followed by the Veterans Health Administration for their mental health condition or have an upcoming appointment with their mental health provider.
- A random sample of 100 patients will be selected for chart review.
- A Pharmacy Clozapine Note will be entered into the patient's chart in order to notify the patient's provider whether or not the veteran meets the pre-specified criteria for clozapine prescribing.
- A second chart review will be conducted for individuals that met the pre-specified criteria, in order to determine if clozapine was initiated based on the Pharmacy Clozapine Note intervention.

## OUTCOMES

- Descriptive statistics will be utilized to report the percentage of patients who were prescribed clozapine after the formal Pharmacy Clozapine Note intervention.
- This percentage will be compared to an equal number of patients who did not receive the intervention.

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