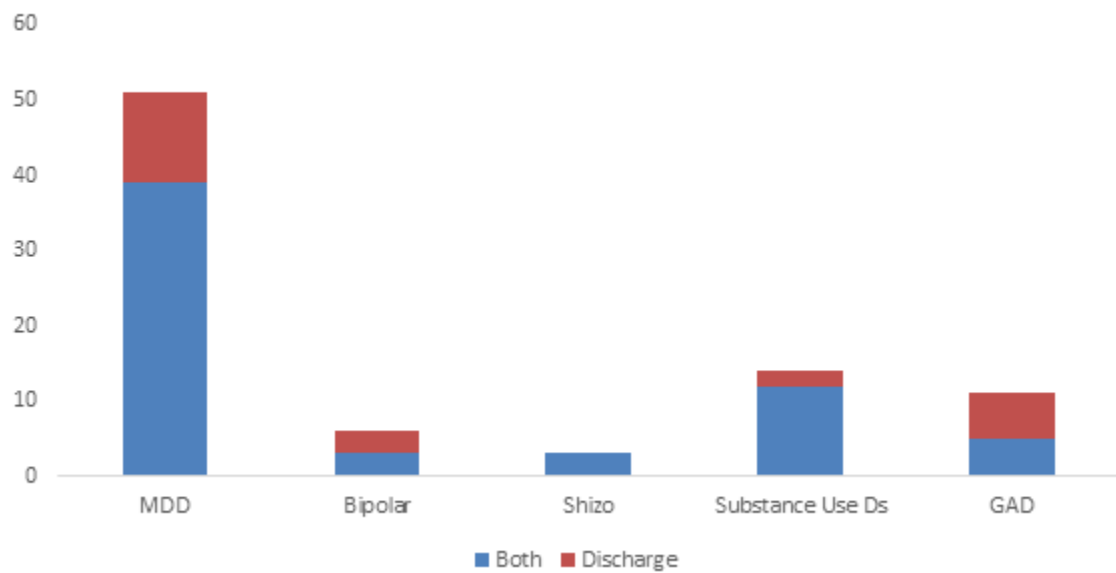
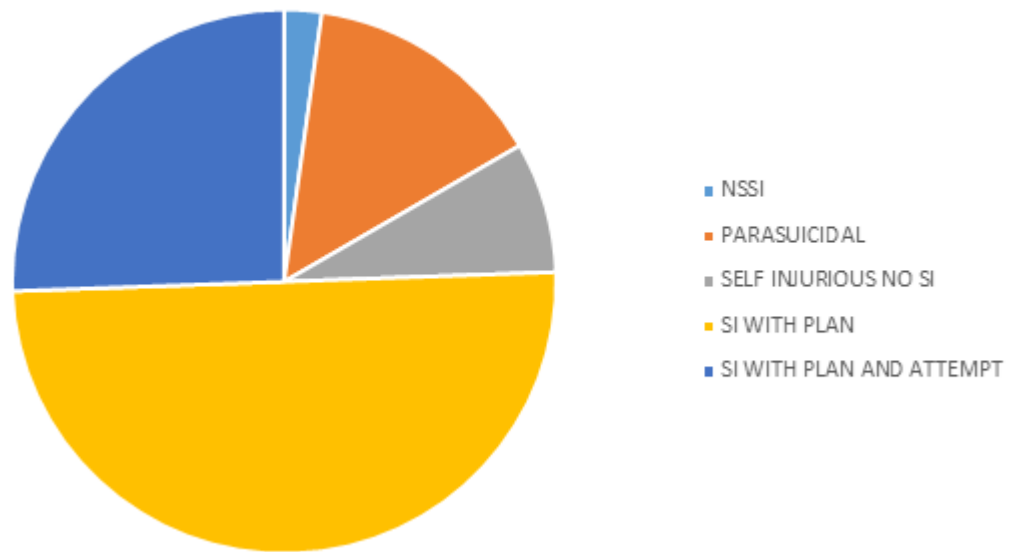




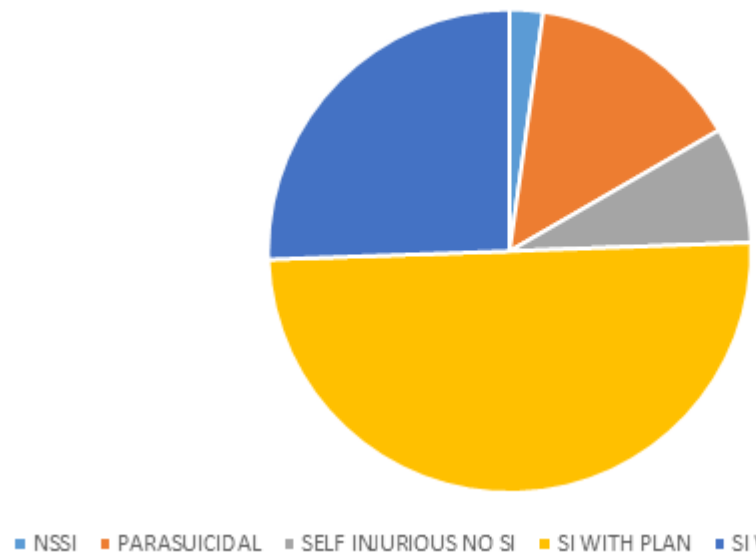
## Diagnoses



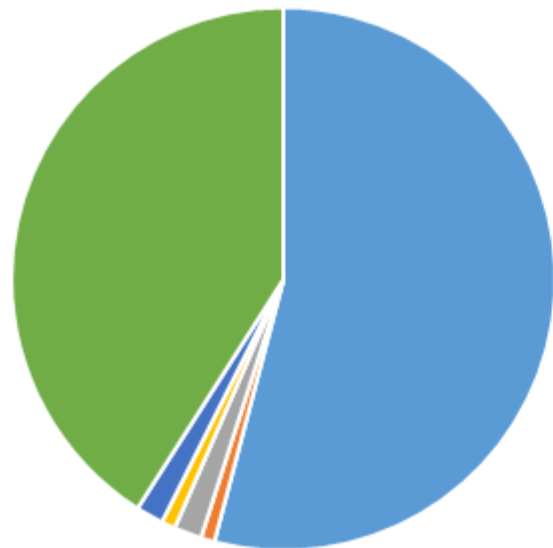
SUICIDE TYPE



SUICIDE TYPE

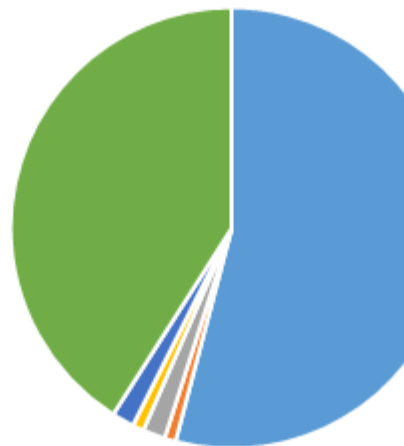


### DISPOSITION



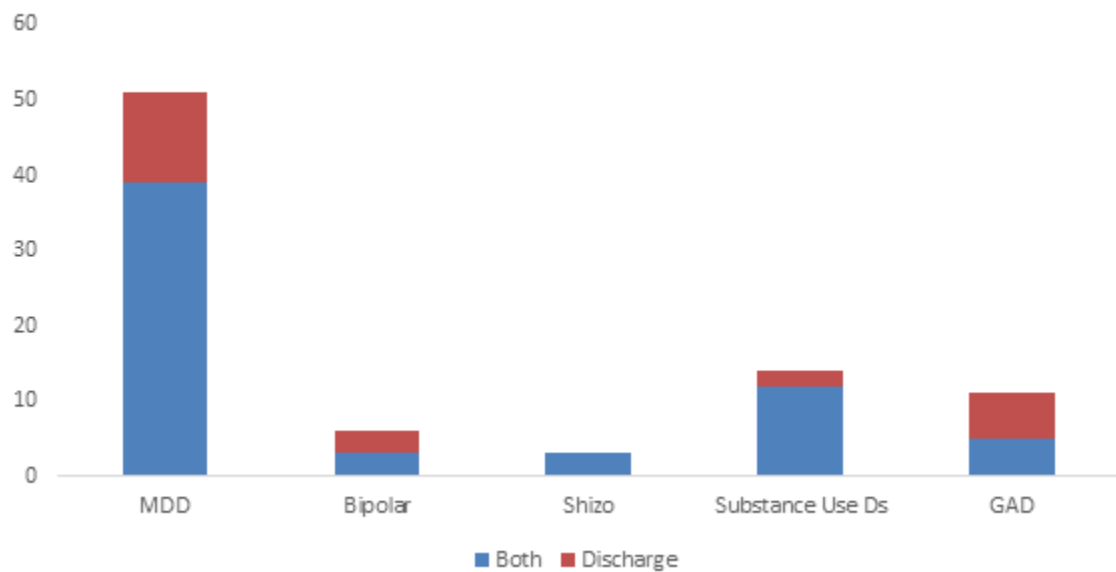
- Inpatient
- Gen med monitored bed
- Gen med unmonitored bed
- ICU
- Inpatient residential
- Outpatient with follow up

### DISPOSITION



- Inpatient
- Gen med monitored bed
- ICU
- Inpatient residential
- Outpatient with follow up

## Diagnoses



# Suicide Crisis On campus: Suicide attempts and Ideation in the collegiate population evaluated in the emergency department.



Souraya Torbey MD, Diana M. Robinson MD, Priyanka Vakkalanka ScM, Christopher P. Holstege MD, James A. Thomson MD

## ABSTRACT

The transition of young adults from high school to college has new found freedoms as well as exposure to significant stressors. Individuals are faced with academic, financial, relationship, and personal stressors, while having increased exposure to alcohol and substances (Arria et. al 2009). Therefore, this can be a period of time of self-exploration and growth, but also potentially fraught with setbacks, development of mental health disorders, and may even progress to suicidal ideation (SI) or suicide attempts (SA).

The University of Virginia (UVA) has long been committed to improve mental health in the college student population and has established a database to better capture student utilization of the Emergency Department (ED). The Student Health Research Database consists of a subset of UVA students who are seen in the UVA Health System ED. We aimed to:

- Determine the prevalence of suicidal ideation and suicide attempts amongst our college students who visited the emergency room between July 01, 2009 and June 30, 2015.
- Evaluate the correlates and epidemiological characteristics of these students.
- Identify situational/contextual factors contributing to these visits.

## METHODS

The data was collected from the Student Health Research database consists of a subset of University of Virginia (UVA) students who are seen in the University of Health System (UVA-HS) Emergency Department (ED). ED visits indicating a range of psychiatric diagnoses, including but not limited to, mood disorders, anxiety disorders, substance-induced mental disorders, personality disorders, poisonings, suicide and self-inflicted poisonings will be identified through specific clinical diagnoses codes based on (ICD-9-CM).

The proportion of unique student ED visits due to suicidal ideation and suicide attempts determined the prevalence of suicidal ideation and suicide attempts for each academic year.

Clinical presentation characteristics were determined by review of the ED admission notes and or the psychiatry consult notes for the presence or absence of these characteristics.

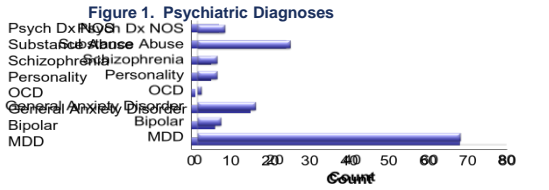
ED admissions were further reviewed for disposition characteristics, contextual variables, and recommendations for follow up care or referral patterns.

## RESULTS

**Table 1. Characteristics of Population**

Characteristic	Total Visits		SI/SA Visits		Non-SI/SA Visits		p-value
	n	%	N	%	N	%	
Total	8,155	100.0	127	100.0	2,028	100.0	
Gender							
Male	3,971	48.7	55	43.3	3,916	193.1	0.220
Female	4,183	51.3	72	56.7	4,111	202.7	
Race/Ethnicity							
White	5,656	69.4	79	62.2	5,577	275.0	0.078
African American	828	10.2	9	7.1	819	40.4	0.229
Asian	1,107	13.6	34	26.8	1,073	52.9	<0.001
Other	1,188	14.6	14	11.0	1,174	57.9	0.254
School							
Arts and Sciences	5,993	73.5	103	81.1	5,890	290.4	0.145
Engineering	1,312	16.1	15	11.8	1,297	64.0	
Other	850	10.4	9	7.1	841	41.5	
Age (Years)							
<=17	72	0.9	0	0.0	72	3.6	0.753
18-19	3,512	43.1	55	43.3	3,457	170.5	
20-21	3,666	45.0	57	44.9	3,609	178.0	
>=22	905	11.1	15	11.8	890	43.9	

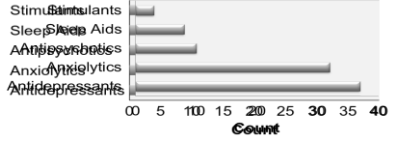
- Table 1 (above) presents the characteristics of the population. 127 student visits (16 per 1,000 visits) were identified as meeting criteria for SI/SA.
- Figure 1 (below) presents frequencies of select psychiatric diagnoses.



## CONCLUSIONS

- Preliminary results show that there was no difference between men and women; however patients who were Asians, had an MDD diagnosis or were on antipsychotics, had a higher likelihood of presenting to the ED with SI.
- Prominent risk factors are hopelessness, insomnia, chronic medications, chronic pain, low self esteem, academic, financial, relationship and any other personal stressors.
- Students presenting to the ED for psychiatric distress may benefit from towards further therapy and psychiatric care through numerous avenues across the university and surrounding community.

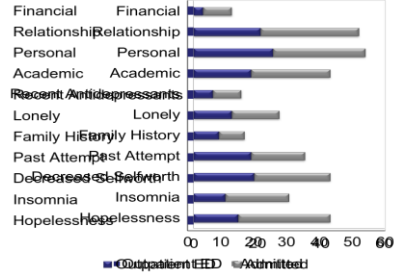
Figure 2. Medications



- 45% of student visits were treated as outpatient ED [Figure 3]
- 45% of student visits were admitted to inpatient psychiatric units:
  - Range: 1-9 days
  - Mean: 3.3 days
  - Median: 3 days

- Key medications prior to the ED visit are presented in Figure 1.
- Substance abuse included: alcohol (26%), marijuana (6%), other (9%).

Figure 4. Select Contextual Factors/Stressors



- Select stressors identified are presented in Figure 4.
- Among those with SA, common methods included overdoses (21%), cutting (9%), and hanging (5%).
- 41% of records indicated therapy and/or psychiatric care at the student health center.

## REFERENCES

- Arria, A. M., O'Grady, K. E., Caldeira, K. M., Vincent, K. B., Wilcox, H. C., & Wish, E. D. (2009). Suicide ideation among college students: A multivariate analysis. *Archives of Suicide Research: Official Journal of the International Academy for Suicide Research*.
- Turner, J. C., Leno, E. V., & Keller, A. (2013). Causes of Mortality Among American College Students: A Pilot Study. *Journal of College Student Psychotherapy*, 27(1), 31-42. <https://doi.org/10.1080/07902525.2013.730022>

# A Silent Epidemic: Suicidality in the College Student Population

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## Introduction

TEXT

## Objective

Human beings face several transitional phases during the life cycle. Genetics and environmental stressors significantly impact an individual's predisposition to developing mental health disorders during these transition periods. The transition between late teenage years and early adulthood is particularly vulnerable. According to the Substance Abuse and Mental Health Services Administration 2013 National Survey on Drug Use and Health, non-collegiate adults aged 18-22 years and full-time college students were found to have similar percentages of suicidal thoughts (8.0 and 8.7%, respectively) and suicidal ideation with plans (2.4 and 3.1%, respectively). Interestingly, college students were less likely to attempt suicide than adults aged 18-22 years (0.9 vs. 1.9 percent). The aim of the study was to characterize the prevalence of suicidal ideation and suicide attempts amongst our college students who visited the emergency room between July 01, 2009 and June 30, 2015. Additionally, a secondary goal was to identify protective factors that may be reducing the risk in this population. Finally, this study evaluated the correlates and epidemiological characteristics of these students and identified situational and contextual factors contributing to these visits.

## Methods

The University of Virginia has long been committed to improve mental health in the college student population and has established a database to better capture student utilization of the Emergency Department (ED). The Student Health Research database consists of a subset of University of Virginia (UVA) students who are seen in the University of Health System (UVA-HS) Emergency Department (ED). ED visits indicating different classes of psychiatric diagnoses including but not limited to mood disorders, primary thought disorders, anxiety disorders, substance-induced mental disorders, personality disorders, poisonings, suicide and self-inflicted poisonings will be identified through specific clinical diagnoses codes based on the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM). The proportion of unique student ED visits due to suicidal ideation and suicide attempts will determine the prevalence of suicidal ideation and suicide attempts for each academic year. Clinical presentation characteristics, such as: psychiatric diagnoses, suicide attempts, outpatient psychotropic medications, current psychiatric treatment, substance use, suicide risk factors will be determined by review of the ED admission notes and or the psychiatry consult notes for the presence or absence of these characteristics. This will inform us on the impact of the suicidal ideation and suicide attempts on the clinical presentation and treatment during their ED admission. Each ED admission was further reviewed for disposition from the ED, length of admission, disposition following the admission, contextual variables, and recommendations for follow up care or referral patterns. The Student Health Center MediCat database will be reviewed to determine the proportion of students with an ED visit who then sought care at the Student Health Center within 30 days of their ED visit.

## Results



**Figure 1 \_ Title**  
TEXT

**Figure 2 – Title**  
Text

**Figure 3 – Title**  
Text

**Figure 4 \_ Title**  
Text

**Figure 5 – Title**  
Text

## Conclusion

- Prominent risk factors are hopelessness, insomnia, chronic medications, chronic pain, low self esteem, academic, financial, relationship and any other personal stressors.
- Students presenting to the ED for psychiatric distress may benefit from towards further therapy and psychiatric care through numerous avenues across the university and surrounding community.

