# Assessing and Managing Suicide Risk in University Students

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### INTRODUCTION

#### **Background:**

- Suicide is the second leading cause of death for youth ages 15-24
  - In the past decade, prevalence of suicidal ideation (SI) has doubled on college campuses
- Utilization of university counseling centers (UCCs) has grown six times faster than institutional enrollment
  - Disproportionately attributed to SI and self injury
  - Increase is mostly in crisis care rather than routine care:
     most common number of appointments is 1
- The Safety Planning Intervention (SPI) is an evidence-based brief intervention (30-60 min) completed in collaboration with a clinician to mitigate acute suicidal crises: shown to reduce SI, suicidal behavior, depressive symptoms and improve coping with suicide-related distress
  - SPI is feasible and acceptable when completed in collaboration with the treating clinician regardless of format (e.g. paper, web-based, online, etc.)

#### Problem:

- At the Vanderbilt UCC retrospective chart review between 11/1 and 12/1/2021 determined that there is no standardized, evidencebased way of intervening when student is at elevated risk for suicide:
  - Currently clinicians of the Acute Care Team (ACT) offer a onetime crisis counseling session (15-60 mins) focused on supportive psychotherapy
  - 0% utilized evidence-based interventions such as the SPI
  - Risk level was also difficult to determine due to lack of standardized risk assessment and documentation that likely interfered with the accurate identification of high risk students

#### Aim:

To increase providers' utilization of the standardized, evidence-based SPI for students identified at high risk for suicide from 0% to 100% (zero harm) over a 4-week period.

#### Objectives:

- Design and implement an electronic SPI tool in collaboration with ACT and IT team
- Standardize and streamline risk assessment procedures and documentation by re-designing crisis care EMR template
- Create Standard Operating Procedures (SOP) in collaboration with leadership team to guarantee safety of all students (zero harm)
- Design visual management tools that strengthen ACT provider adherence to SOP
- Providing education to ACT staff on processes outlined in the new SOP and train on use of SPI tool and supporting material

# **METHODS**

#### Plan

- Set implementation timeline: 11/1-12/1/2022 to minimize seasonal variation in utilization interfering with study results Design electronic SPI form: immediately available when
- Design electronic SPI form: immediately available when published to patient portal by provider, bidirectional real-time editing to allow collaboration between patient and clinician, easily downloadable to personal devices & available at all times on student portal
- Re-design crisis care encounter template: provide checklist of comprehensive risk and protective factors to determine risk level: low, intermediate, high
- Create SOP: outlining assessment procedures and criteria for implementation of SPI form: (1) SI with plan and/or intent in the past month (2) suicidal behavior in past 3 months (3) risk outweigh protective factors
- Design visual management tool: 2-page laminated "Quick Guide to Urgent Care" to be placed in each provider's office + "Crisis Care Brief Assessment" printed document to be used during each encounter when no access to EMR

#### Act

- Adopt changeAdapt change
- Abandon change

#### Do

Orient staff to SOP, SPI form & support tools
 Publish SOP, SPI tool, visual aides and new EMR templates to begin implementation
 Collect data during 4-week implementation period: demographic information, utilization of standardized risk assessment, utilization of standardized, electronic SPI

# Study

#### Outcomes assessed included the following

- Percentage of completed comprehensive risk assessment = (comprehensive risk assessment used to determine risk strata/all encounters)\*100
   Percentage of Implementation of SPI tool = (SPI tool published & used/all high risk
- encounters)\*100

   Used Fisher's exact test to determine statistical significance and calculate odds

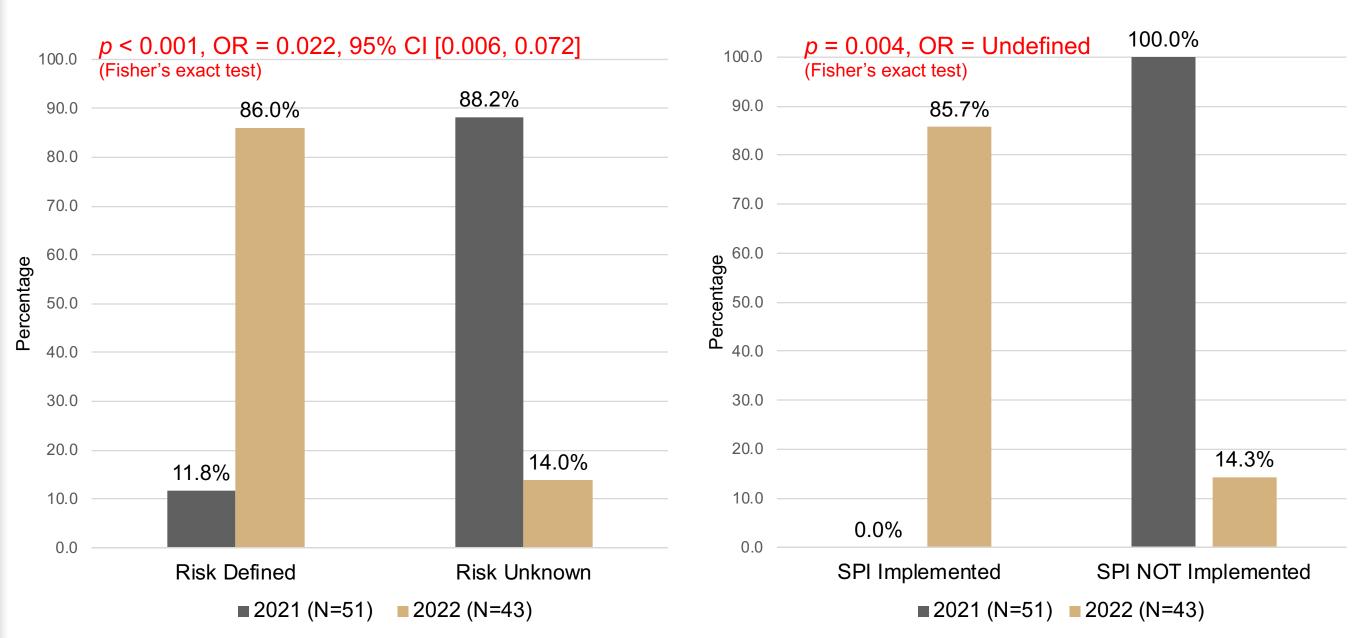


Figure 1. Comprehensive Risk Assessment Pre and Post Intervention

Figure 2. Implementation of Safety Planning Intervention

Pre and Post Intervention

# RESULTS

Standardization of risk assessment and implementation of an electronic safety planning form with bidirectional real-time editing capacity significantly increased delivery of the evidence-based Safety Planning Intervention to students seeking care for acute suicidal crises.

• SPI utilization rate was 85.7%, still below the targeted 100%

## IMPLICATIONS FOR PRACTICE

- The **project aim** of 100% SPI utilization in high-risk students **was not achieved**, so change is to be adapted in the future
- Limitations:
  - **Pre-intervention data are unreliable** due to inconsistencies in documentation potential for undocumented/partial SPI
  - EMR could not support automation of assessment and safety planning processes resulting in provider assigning wrong risk level/need for SPI implementation
    - Technological innovations that allow for automated "risk stratification" will likely reduce these provider errors
  - Difficulties in downloading SPI form due to EMR limitation likely hindered perceived usefulness of intervention
  - No data collected on clinician attitudes, perception and knowledge pre- and post-intervention
- Future directions:
  - Create **standing meeting** (e.g. 1x/mo.) with **ACT** to explore attitudes and beliefs to break down resistance to change
  - Undertake another root cause analysis to determine barriers to successful implementation; plan additional PDSA cycles
  - Implement project into new EMR system with capabilities for automation and easy access of completed SPI form

Age in years	2021 (n=46)		2022 (n=37)	
	19.5	±1.3	22.8	±4.7
	n	%	n	%
Gender				
Female	28	60.9	29	78.4
Male	18	39.1	8	21.6
Race/Ethnicity				
White	17	37.0	13	35.1
Asian	10	21.7	12	32.4
Black	12	26.1	6	16.2
Hispanic	6	13.0	3	8.1
Other	1	2.2	3	8.1
Graduate School	7	15.2	14	37.8
Undergraduate Programs	39	84.8	23	62.2

**Table 1.** Comparison of Sociodemographic Characteristics of Participants in 2021 and 2022

# REFERENCES & SUPPLEMENTS

