

## Background

- Suicide is a leading cause of death in the United States and rates continue to rise.
- No progress has been made in predicting suicide risk in the last 50 years.
- Lack of progress may be due to our lack of knowledge about the experience of **Suicidal Ideation (SI)**.

## Aims

- 1) Identify specific **characteristics** of suicidal ideation (SI) that have been examined in research, including how they are **conceptualized**.
- 2) Describe the ways in which these characteristics of SI have been **measured**.
- 3) Assess the degree to which SI characteristics examined in research are aligned with characteristics of SI included in the **Columbia Suicide Severity Rating Scale**, a measure often considered a 'gold standard' in the field.

## Methods

Systematic Review of four databases (PubMed, Embase, Web of Science, and PsychInfo) and hand search.

Systematic Review software – Covidence – used for article selection.

Search example: ("suicidal ideation"[MeSH] OR "suicidal ideation"[ti] OR "suicidal ideation"[ot]) AND (biotype OR subtype OR subgroup OR phenotype OR "variability")

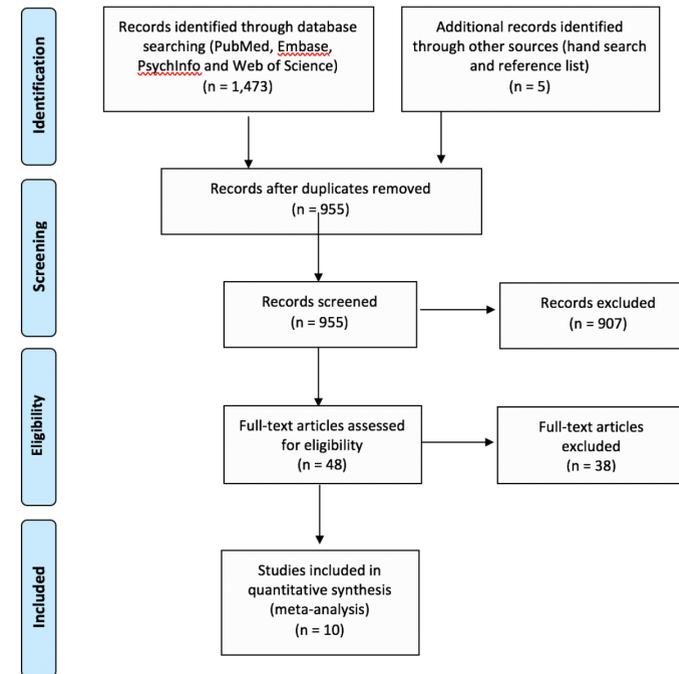
### Inclusion:

- Studies that measured specific characteristics of the SI experience in any population.
- Studies which, if using a longitudinal design, measured characteristics of SI at least once per day.

### Exclusion:

- Studies which analyzed SI as a binary variable.
- Studies which conflate characteristics of the individual (i.e. demographics, environmental factors, personality traits, diagnoses, etc.) with characteristics of SI in their analysis.

## Results



### Study Characteristics

- 10 publications, 7 studies, and 9 participant samples.
- 5 samples of adolescents/young adults, 4 of adults
- Primarily white and female samples.
- 5 studies used longitudinal design; 4 studies used electronic Ecological Momentary Assessment or survey

### Characteristics Measured (Study author's wording)

*Intensity*  
*Duration*  
*Frequency*  
*Desire to die*  
*Intent to die*  
*Ability to resist suicide urge*  
*Age of onset*  
*Controllability*  
*"Level" of passive SI*  
*"Level" of active SI*  
*Urge severity*  
*Variability*

## Characteristics of SI Compared to C-SSRS

Author (Year)	Severity		Intensity							
	1=wish to be dead, 2=non-specific active suicidal thoughts, 3=suicidal thoughts with methods, 4=suicidal intent, and 5=suicidal intent with plan		Frequency "How many times have you had these thoughts?"		Duration "When you have these thoughts, how long do they last?"		Controllability "Could/can you stop yourself from thinking about wanting to die if you wanted to?"		Deterrents "Are there things – anyone or anything – that stopped you from wanting to die or from wanting to commit suicide?"	Reason for Ideating "What sort of reasons did you have for thinking about wanting to die or killing yourself?"
	Was 'severity' measured as conceptualized above?	Was the label severity used? (If not, what label was used?)	Was 'frequency' measured as conceptualized above?	Was the label frequency used? (If not, what label was used?)	Was 'duration' measured as conceptualized above?	Was the label 'duration' used? (If not, what label was used?)	Did they measure 'controllability' as conceptualized above?	Did they use the label 'controllability'? (If not, what label was used?)	Did they measure 'deterrents' as conceptualized above?	Did they measure 'reason for ideating' as conceptualized above?
Witte (2005)	Yes	No (Intensity)	Yes	No (Duration)	No	NA	No	NA	No	No
Witte (2006)										
Nock (2009)	Yes	No (Intensity)	Yes	Yes	Yes	Yes	No	NA	No	No
Kleinman (2017)	Yes	No (SI) (Desire) (Intention)	Yes	Yes	No	No	Yes	No (Ability to resist urge)	No	No
Kleinman (2018)	Yes	No (SITB)	Yes	No (Duration)	Yes	Yes	Yes	Yes	No	No
Rizk (2018)	No	NA	No	NA	Yes	Yes	No	NA	No	No
Hallensleben (2018)	Yes	No (Level)	No	NA	No	NA	No	NA	No	No
Hallensleben (2019)										
Czyz (2019)	Yes	No (Urge severity)	Yes	Yes	Yes	Yes	No	NA	No	No

\*Conceptualization of comparison characteristics derived from the Columbia Suicide Severity Rating Scale (C-SSRS); SI = Suicidal Ideation; SITB = self-injurious thoughts and behaviors. Green = studies which used the same label as the C-SSRS to describe the corresponding characteristic as conceptualized by the C-SSRS. Yellow = studies which did not use the same label as the C-SSRS to measure the corresponding characteristics as conceptualized by the C-SSRS.

## Conclusions

1. Severity, intensity, frequency and duration are the most measured **characteristics** of the SI experience, however, are sometimes used interchangeably when conceptualized differently.
2. There is little consensus about the **conceptualization** or labeling of SI characteristics.
3. There are no common or standardized **measures** of any SI characteristics.
4. Most research to date has focused on severity and frequency as SI characteristics. Controllability received little attention as a characteristic of SI.

## Implications for Future Research

- Identification of SI characteristics is an important factor for the progress of suicide research.
- Per results of this review, there is further need for...
  1. Consensus on the conceptualization of SI characteristics
  2. Examination of SI characteristics associated with duration and controllability
  3. Development of valid and standardized SI characteristic measures
  4. Evaluation of the C-SSRS as a framework for future SI characteristics research
- Proper measurement of SI characteristics could lead to...
  1. Discovery of SI subgroups
  2. Proper SI phenotyping and subsequently more individualized psychiatric care leading to better patient outcomes.
  3. Improved ability to predict risk of suicide