Methodological Considerations in the Real-Time Monitoring of Suicidal Thoughts and Behaviors

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Design Considerations

- ## Sample
  - Youth (Children/Adolescents) vs. Adults
  - Acuity

- ## Context
  - Community
  - Outpatient
  - Inpatient hospitalization
  - Inpatient discharge
  - Emergency department discharge

Predicting Suicidal Thoughts and Behaviors Post Emergency Department Discharge
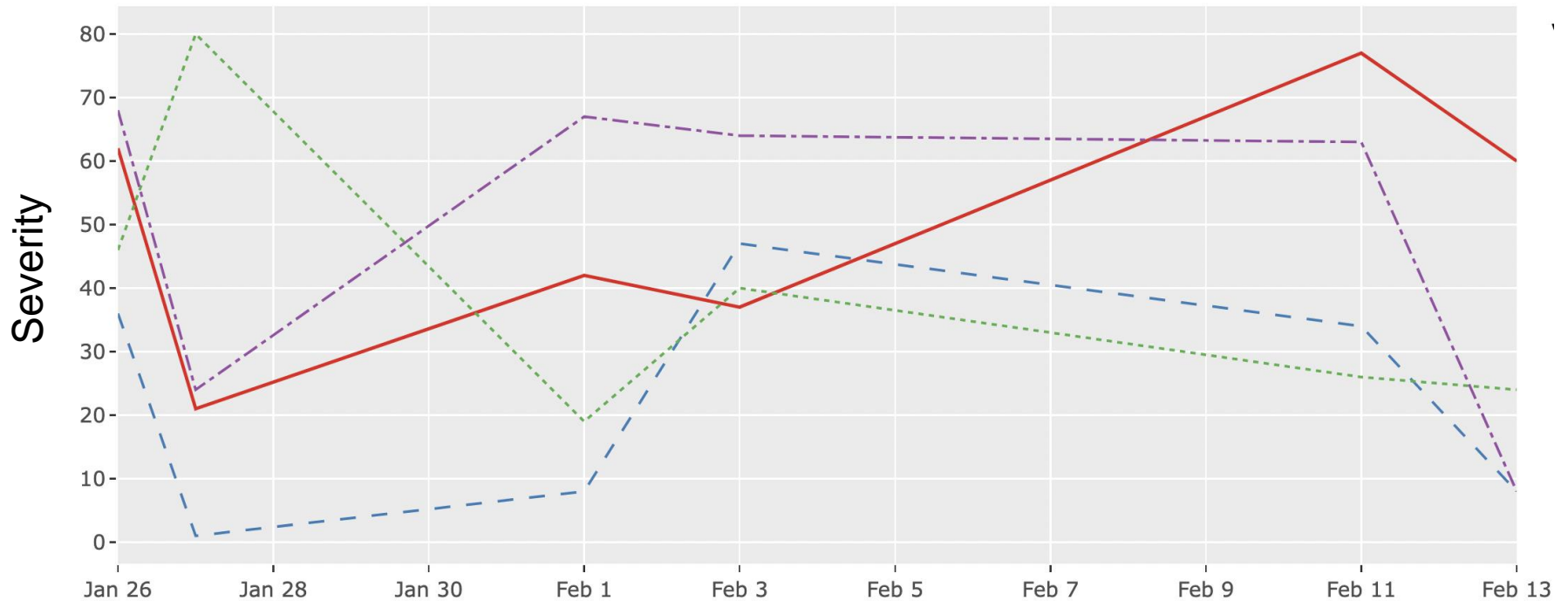
Design Considerations

- **Length of Study**
  - Base rate (suicidal thoughts vs. behaviors)
  - Fatigue
  - Acceptable missingness

- **Sampling Rate**
  - Daily monitoring
  - EMA bursts

- **Item Selection**
  - Daily vs. Intensive

- **Delivery System**
  - Personal Smartphone vs. Study Smartphone
  - App vs. Text Messages

Missingness

- Expected vs. Unexpected Missingness
  - Non-response
  - Technological misfires
  - Clinically meaningful

- Compliance: The Good, Bad, and Ugly
  - STB studies: ~40-80% (e.g., Ammerman et al., 2022)
  - Optimizing strategies

- Imputation
  - Acceptable practice, but there are <u>always</u> implications
  - Approach contingent on method of assessment

Mobile Assessment for the Prediction of Suicide

Psychometric Properties

- Wild West
  - Researchers using wide range of approaches
  - Quasi-adapted from self-report (or not)
  - Idiosyncratic language
  - STB-EMA psychometrics (e.g., Forkmann et al. 2018)

- Suggestions for Best Practices
  - Reliability and validity statistics
  - Include item prompts (e.g., Supplement)

Observational and Interventional Approaches

- Designs
  - Observational: Testing prospective relationships
  - Interventional: Targeting specific changes

- STB Intensive Longitudinal Obervational Designs
  - *Interventional Components* (e.g., "suicidal event")
  - Safety triggers (e.g., crisis hotlines)
  - 24/7 On-Call

- Intervention
  - Tracking skill acquisition, skill utilization, symptom change
  - Just-in-Time Adaptive Interventions

Summary

- **Clearly Defined Question**
  - Context
  - Length

- **Track Missingness Carefully**

- **Report Psychometrics**

- **Team Approach**
  - Institute safety practices (and continually refine)
  - Participant tracking
  - Data analytics

Acknowledgements