

NONSUICIDAL SELF-INJURY AND RISK FOR SUICIDAL BEHAVIOUR: IDENTIFYING STUDENTS MOST AT RISK IN SCHOOLS

February 17, 2017

OVERVIEW

- Nonsuicidal self-injury vs suicidal behavior
- The link between nonsuicidal self-injury and suicidal behavior
- Series of studies (1-4)
- Implications for research and practice
- Responding to NSSI in schools
- Discussion period

TEST YOUR SELF-INJURY KNOWLEDGE

- Take a minute to complete the survey....

NONSUICIDAL SELF-INJURY (NSSI)

- Direct and deliberate destruction or alteration of bodily tissue in the absence of suicidal intent (DSM-5)
- As many as 7-10% of elementary students , and 20-30% of secondary and post-secondary students report having engaged in NSSI (Hamza & Willoughby, 2014; Hankin & Abela, 2011; Hilt et al., 2008; Swannell et al., 2014)
- Gender differences? (Bresin & Schoenleber, 2015)

SUICIDAL BEHAVIOR

- Directly self-injurious behaviors that are engaged in with the intent to end one's life (DSM-5)
- As many as 4-8% of adolescents and young adults report having made at least once suicide attempt (Hamza & Willoughby, 2013; Whitlock & Knox, 2007)
- *Informing the future: Mental Health Indicators of Canada*, published by the Mental Health Commission of Canada in 2015

DIFFERENTIATING FORMS OF SELF-INJURY

- Intention
 - NSSI as a form of coping behavior (Klonsky & Glenn, 2009)

Intrapersonal Functions

When I self-injured I was....

- Affect regulation: “reducing anxiety, frustration, anger, or other overwhelming emotions”
- Self-punishment: “expressing anger towards myself for being stupid or worthless”

Interpersonal Functions

When I self-injured I was....

- Interpersonal boundaries: “creating a boundary between myself and others”
- Interpersonal influence: “seeking care or help from others”

WHY CHOOSE NSSI OVER OTHER COPING BEHAVIORS?

- Social learning hypothesis
- Pragmatic hypothesis
- Social signalling hypothesis
- Self-punishment hypothesis
- Implicit identification hypothesis

THE LINK

- Distinct, but related....
 - Shared risk factors?
 - Could NSSI be a risk factor for suicidal behavior?

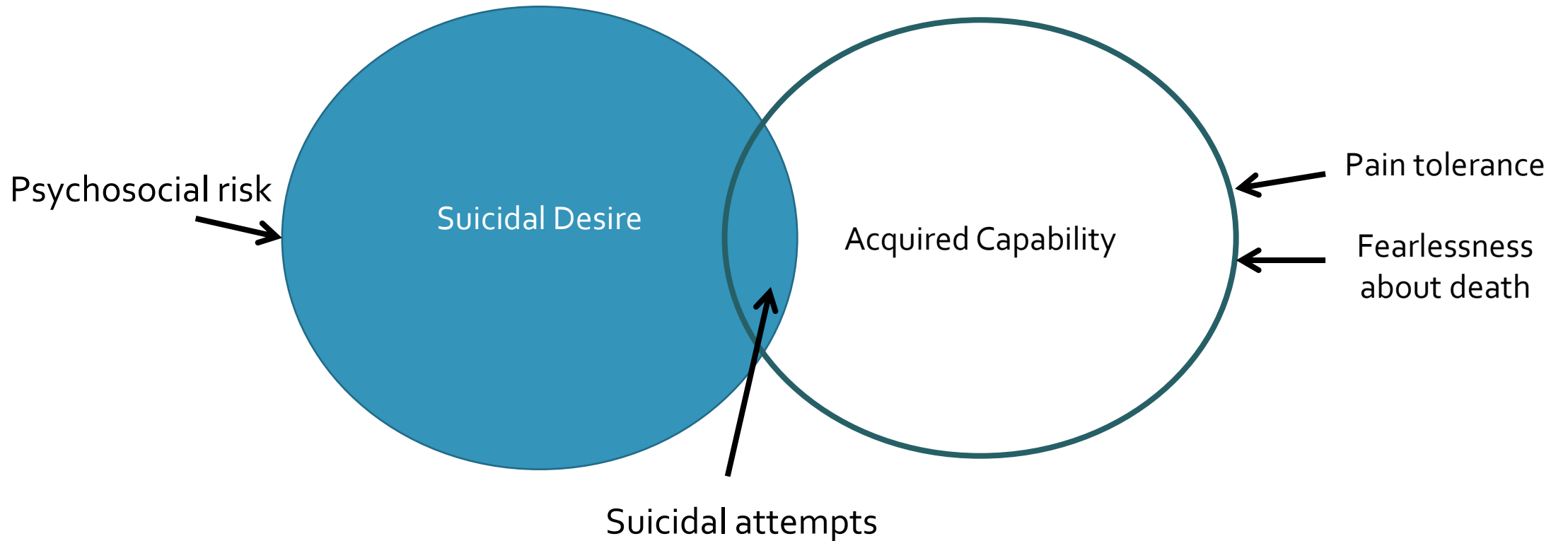
THE LINK

(HAMZA, STEWART & WILLOUGHBY, 2012)

- Extensive review of the literature
- NSSI was associated with suicidal ideation and attempts (see Asarnow et al., 2011; Prinstein et al., 2008; Wilkinson et al., 2011)
 - Sex, age, SES
- Lack of longitudinal research which is necessary to assess whether NSSI precedes development of suicidal behavior

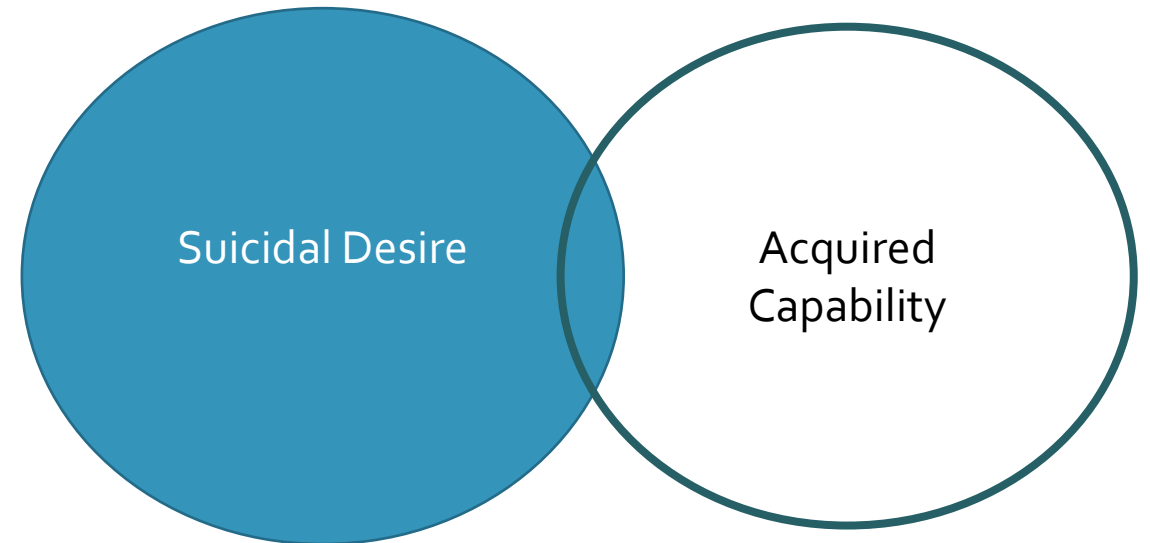
THE LINK - A THEORETICAL MODEL

Joiner's Theory for Suicide



WHAT WE NEED TO KNOW NEXT...

- Compelling theory, but is there empirical evidence?
- Lack of longitudinal research



STUDY 1: HAMZA & WILLOUGHBY (2016)

- Longitudinal examination of the link between NSSI and suicidal behavior
- The Brock Mental Health Project
 - 1132 (Mage = 19 years) undergraduate students who participated in the first five waves of a larger ongoing longitudinal research project (assessments were one year apart)

STUDY 1: METHOD

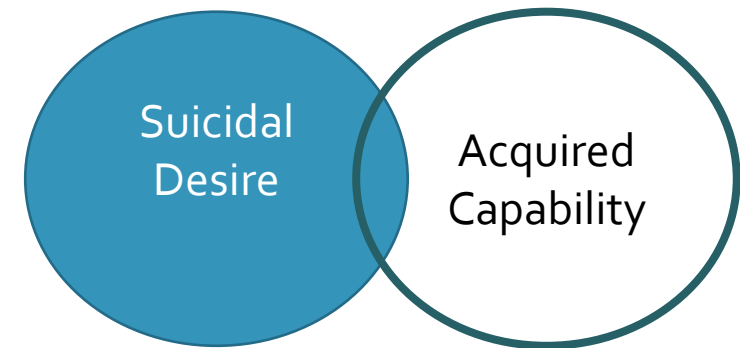
NSSI	Inventory of Statements about Self-Injury (ISAS, Klonsky & Glenn, 2009) <ul style="list-style-type: none">- Frequency of NSSI
Suicidal Behavior	Suicide Behavior Questionnaire Revised (SBQ-R, Osman et al., 2002) <ul style="list-style-type: none">- Suicidal attempts and age of attempt- Past year ideation

STUDY 1: RESULTS

- Students who had a history of NSSI in first year university were 2.04 times more likely to experience suicidal ideation across the university years
- Students who had a history of NSSI in first year university were 3.46 times more likely to make a suicidal attempts across the university years

STUDY 1: DISCUSSION

- Study supports findings from research review
- Interpersonal Theory of Suicide – useful framework for understanding link between NSSI and suicidal behavior



WHAT WE NEED TO KNOW NEXT...

- Which students with a history of NSSI are most likely to attempt suicide?
 - Targeted prevention efforts
- Lack of research examining variability among students engaging in NSSI

STUDY 2: HAMZA & WILLOUGHBY (2013)

- NSSI characteristics (e.g., frequency, methods, etc.) and suicidal risk
- First wave of The Brock Mental Health project (subsample of students engaging in NSSI)
 - N = 439 students

STUDY 2: METHOD

NSSI	<p>Inventory of Statements about Self-Injury (ISAS, Klonsky & Glenn, 2009)</p> <ul style="list-style-type: none">- Frequency of NSSI- Most recent NSSI- Number of methods of NSSI- Physical pain during NSSI- Time elapsed between urge and injury- Whether they self-injured alone
Suicidal Behavior	<p>Suicide Behavior Questionnaire Revised (SBQ-R, Osman et al., 2002)</p> <ul style="list-style-type: none">- Lifetime suicidal ideation/attempts- Past year ideation- Disclosure of suicidal behavior- Future likelihood of suicide attempt

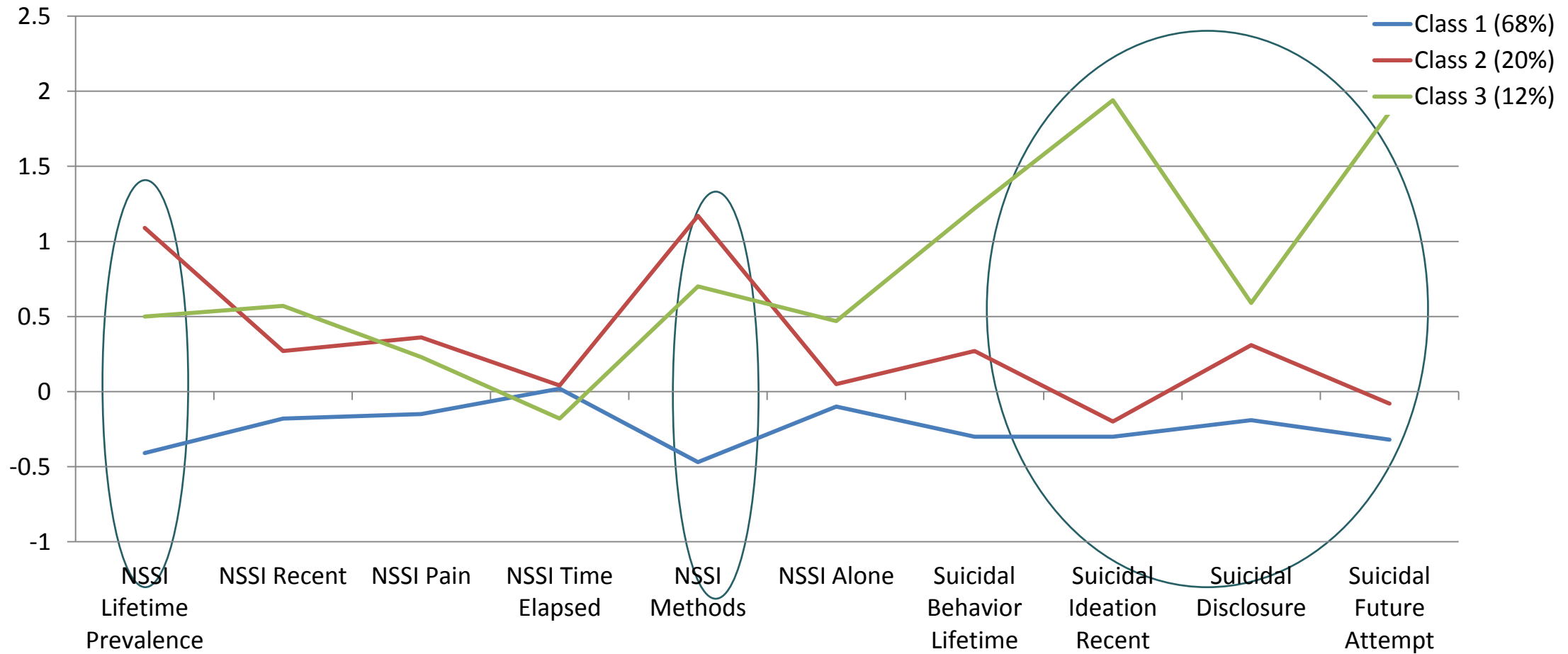
STUDY 2: METHOD

Intrapersonal risk factors	Daily Hassles, self-esteem (Rosenberg, 1965), social anxiety (La Greca & Stone, 1993), difficulty with emotion regulation (Gratz & Roemer, 2004), depressive symptoms (Radloff, 1977), behavioral inhibition (Carver & White, 1994)
Interpersonal risk factors	Parental attachment (Armsden & Greenberg, 1987), parental criticism (Barber, 1996), parental psychological control (Frost, 1990), Friendship quality (Armsden & Greenberg, 1987)

STUDY 2: PLAN OF ANALYSIS

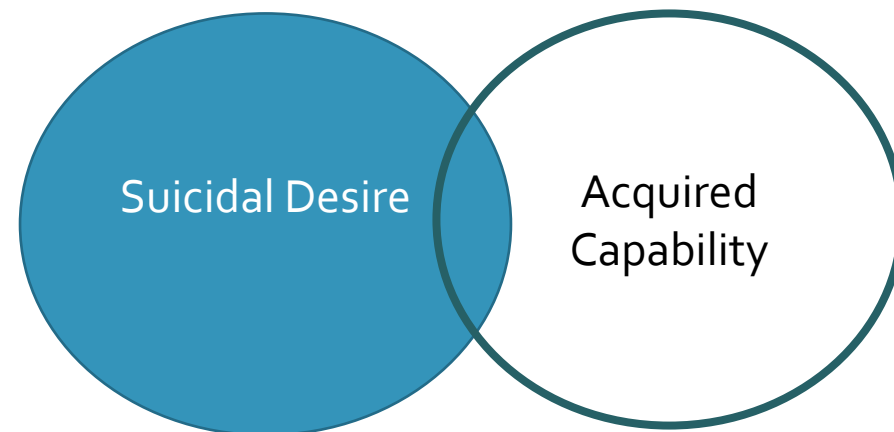
- Latent class analysis in Mplus
 - a statistical procedure used to identify unobserved classes or groups of individuals that score similar to each other on measures of interest
- self-injury characteristics as class indicators
 - NSSI frequency, recency, pain, time elapsed, methods, alone, suicidal ideation, attempts, disclosure and future attempt
- ANOVA and follow-up comparisons in SPSS

STUDY 2: RESULTS



STUDY 2: DISCUSSION

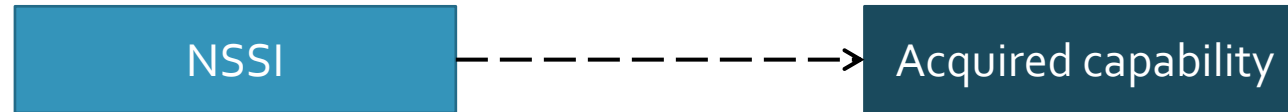
- Majority of individuals who engaged in NSSI were not at high risk for suicidal behavior
- Only Class 3 (high frequency NSSI/high risk for suicidal behavior) met the clinical cut-off score for high suicide risk



WHAT WE NEED TO KNOW NEXT...

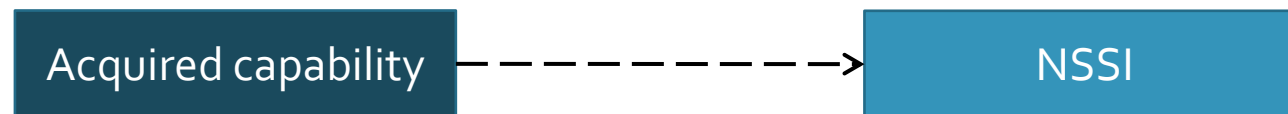
- NSSI may lead to increased acquired capability for suicide

Joiner's theory



OR

Alternative hypothesis



STUDY 3: WILLOUGHBY, HEFFER & HAMZA (2015)

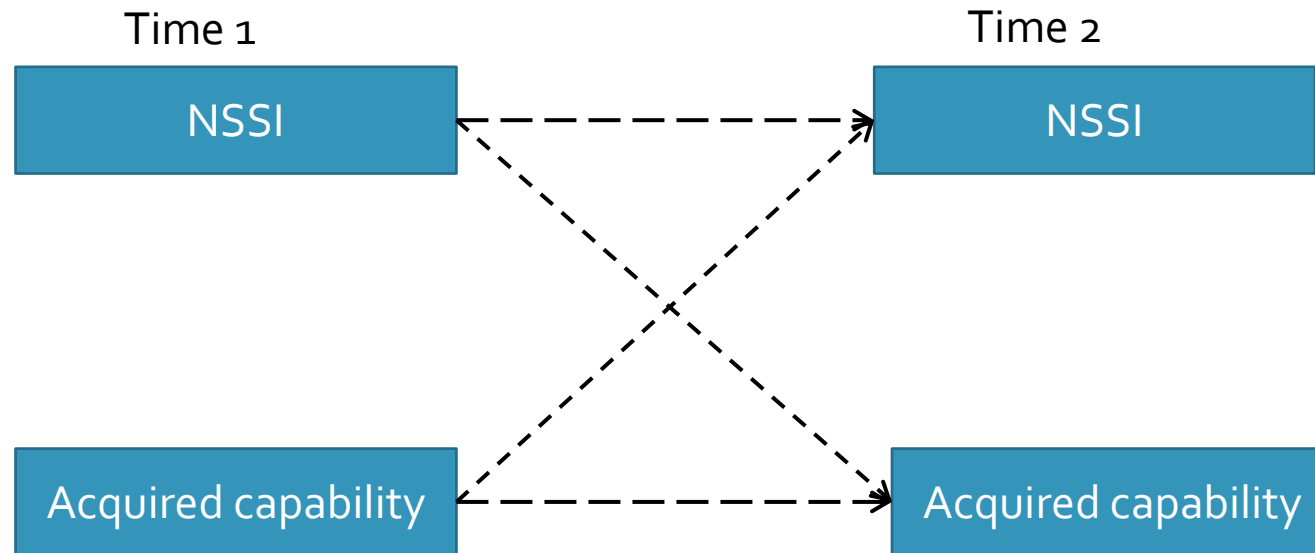
- The link between NSSI and acquired capability for suicide over time
- The Brock Mental Health Project: 4th and 5th waves of data collection

STUDY 3: METHOD

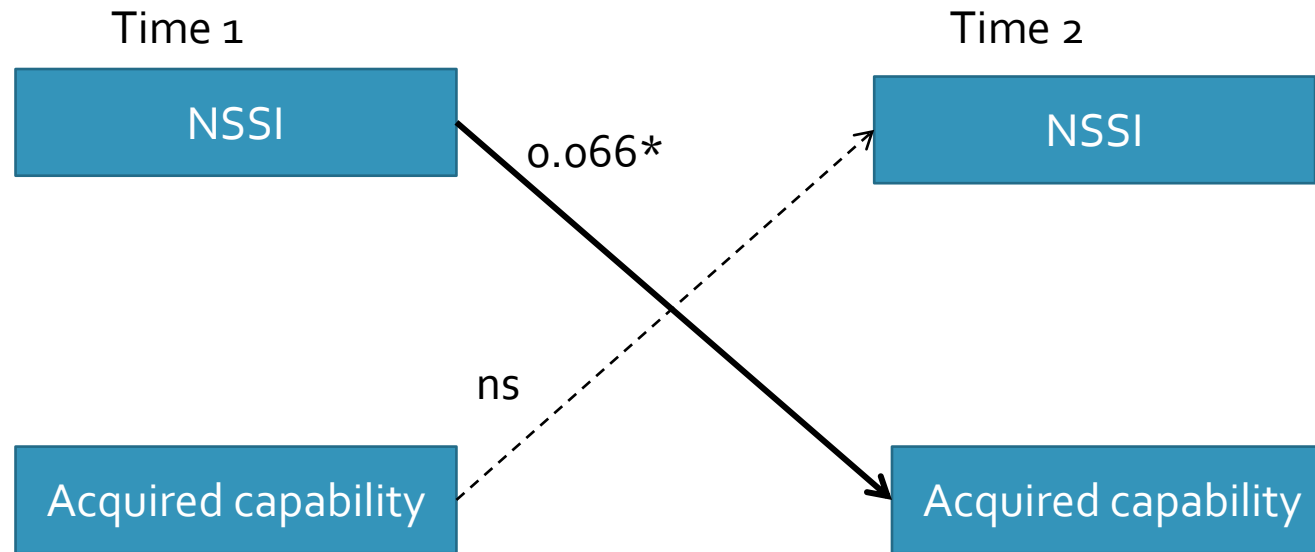
NSSI	Inventory of Statements about Self-Injury (ISAS, Klonsky & Glenn, 2009) - Frequency of NSSI within the past year
Acquired capability for suicide	Acquired Capability for Suicide Scale – shortened version (Van Orden et al., 2008)
Covariates	Age, sex and SES Anxiety symptoms (Carver & White, 1994) Borderline personality disorder characteristics (Zinarini et al., 2003)

STUDY 3: RESULTS

- Path analysis in AMOS - Autoregressive cross-lagged model



STUDY 3: RESULTS



STUDY 3: DISCUSSION

- Unidirectional link between NSSI and acquired capability for suicide (consistent with Joiner's theory)
- Inconsistent with hypothesis that individuals who have heightened acquired capability for suicide are more likely to engage in NSSI

WHAT WE NEED TO KNOW NEXT...

- Which students who engage in NSSI are most likely to develop acquired capability for suicide (particularly, pain tolerance)?

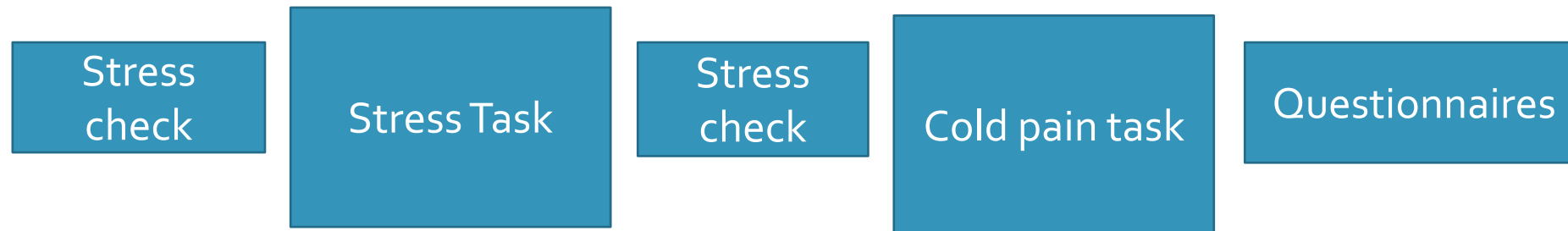
STUDY 4: HAMZA, WILLOUGHBY & ARMIENTO, 2014

- NSSI and tolerance to pain (one measure of acquired capability for suicide)
- Sample drawn from The Brock Mental Health Project
 - 82 students invited to participate in a lab-based study with 3 group conditions
 - NSSI + self-punishment (N = 31)
 - NSSI + no self-punishment (N=25)
 - No NSSI (N = 26)

STUDY 4: METHOD

NSSI	<p data-bbox="504 444 2397 508">Inventory of Statements about Self-Injury (ISAS, Klonsky & Glenn, 2009)</p> <ul data-bbox="504 596 1666 1039" style="list-style-type: none"><li data-bbox="504 596 1054 661">- Frequency of NSSI<li data-bbox="504 672 1238 736">- Physical pain during NSSI<li data-bbox="504 748 1569 812">- Time elapsed between urge and injury<li data-bbox="504 823 1398 888">- Whether they self-injured alone<li data-bbox="504 899 1666 963">- Whether they wanted to stop self-injuring<li data-bbox="504 975 1480 1039">- 6 motivations for engaging in NSSI
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STUDY 4: METHOD AND PROCEDURE



STUDY 4 : RESULTS

	NSSI + punish	NSSI + no punish	No NSSI
Pain threshold	30.97 (32.54) _b	19.31 (21.73) _{a,b}	15.29 (12.23) _a
Pain intensity at threshold	5.50 (2.01) _a	5.86 (1.62) _a	5.98 (1.45) _a
Pain tolerance	60.78 (42.81) _b	40.54 (29.53) _a	38.02 (27.82) _a
Pain intensity at tolerance	7.63 (2.43) _a	8.88 (0.85) _b	8.88 (1.30) _b

STUDY 4: DISCUSSION

- NSSI + punish (greater pain tolerance)
- Consistent with Joiner's theory that NSSI may habituate individuals to pain
- But we extend Joiner's work by demonstrating that motivational factors also are important

SUMMARY OF STUDY FINDINGS

- Responded to need for additional research on NSSI and suicidal behavior
- Key findings:
 - NSSI was a risk factor for suicidal ideation and attempts
 - However, significant variability in suicidal risk among individuals engaging in NSSI

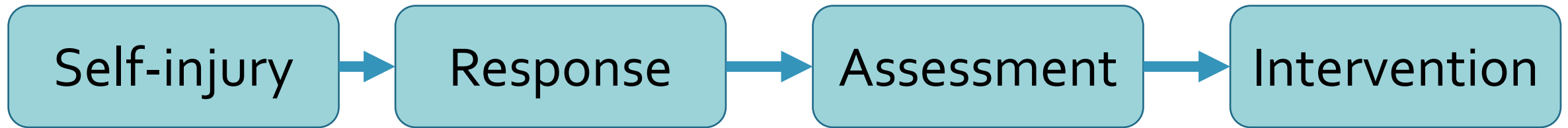
SUMMARY AND IMPLICATIONS

- “Warning signs” for school mental health practitioners:
 - Frequent NSSI
 - Multiple methods of NSSI
 - Recent NSSI
 - Self-injuring alone
 - Self-punishment motivations for NSSI
 - Suicidal ideation

RESPONDING TO NSSI IN SCHOOLS

- Schools uniquely positioned to address the mental health needs of students
- Strong consensus in the field that schools should have a policy on NSSI (Bubrick et al., 2010; Hamza & Heath, forthcoming; Hasking et al., 2016; Lieberman et al., 2009; Toste & Heath, 2010)

RESPONDING TO NSSI IN SCHOOLS



DEVELOPING A SCHOOL PROTOCOL

- Nonsuicidal Self-Injury in Schools: Developing and Implementing a School Protocol: <http://www.selfinjury.bctr.cornell.edu/perch/resources/non-suicidal-self-injury-in-schools.pdf>
- Lieberman, R. A., Toste, J. R., Heath, N. L. (2009). Nonsuicidal self-injury in schools (pp 195-215). In M. K. Nixon & N. H (Eds.) *Self-Injury in Schools: The Essential Guide to Assessment and Intervention*. New York, NY: Routledge/Taylor & Francis Group.
- Toste, J. R., & Heath, N. L. (2010). School response to non-suicidal self-injury. *The Prevention Researcher*, 17, 14-17.

CONCLUSIONS AND SUMMARY

Returning to your survey about self-injury knowledge...

- Nonsuicidal self-injury is a widespread mental health concern, and as many as 20-30% of adolescents have engaged in NSSI.
- Gender differences are not as pronounced as one thought, although there are differences in the types of behaviors students used.
- Students engage in NSSI to regulate overwhelming social and emotion situations (e.g., distress, feelings of worthlessness) as well as to communicate their distress to others.
- NSSI is a risk factor for suicidal behavior (distinct, but related behaviors), and frequency, method, duration, motivations and social context can all be used to help discern high risk students.
- All members of the school community should be involved in developing a policy to identify and respond to NSSI in schools.

THANKS!

Dr. Shannon Stewart
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DISCUSSION PERIOD

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