Non-suicidal Self Injury and Suicide Behavior in Youth and Young Adults: How might they co-relate?

Singapore, February 6, 2013

Mary K. Nixon MD FRCPC

Clinical Associate Professor, Dept of Psychiatry, UBC
Affiliate Associate Professor, Division of Medical Sciences, UVic

University of Victoria | British Columbia Canada

THE UNIVERSITY OF BRITISH COLUMBIA

Disclosures of Potential Conflicts

Source	Research Funding	Advisor/ Consultant	Employee	Speakers' Bureau	Books, Intellectual Property	In-kind Services (example : travel)	Stock or Equity > $10,000	Honorarium or expenses for this presentation or meeting
					Royalties, Taylor and Francis, since 2009			Expenses

The Spectrum of Self Harm and the Terminology/Definitions conundrum

- Accidental suicide
- Completed suicide
- Intentional self harm
- Intentional self injury
- Deliberate self harm
- Instrumental suicide-related behaviour
- Non-suicidal self injury
- Parasuicide
- Suicide behaviors
- Suicidality
- Suicide attempt
- Suicide gesture
- Suicide plan
- Suicide threat
- Thought/ideation

The complexity of suicidal behaviour

Many factors contribute to suicidal behaviour including:

- Mental health status
- Family history and context
- Personality/cognitive characteristics
- Peer factors
- Situational factors
- Broader social context

Amanda Todd's Story

- My story: Struggling, bullying, suicide, self harm – YouTube

A harrowing video of a youth who suicided within the past year in BC which had much media attention

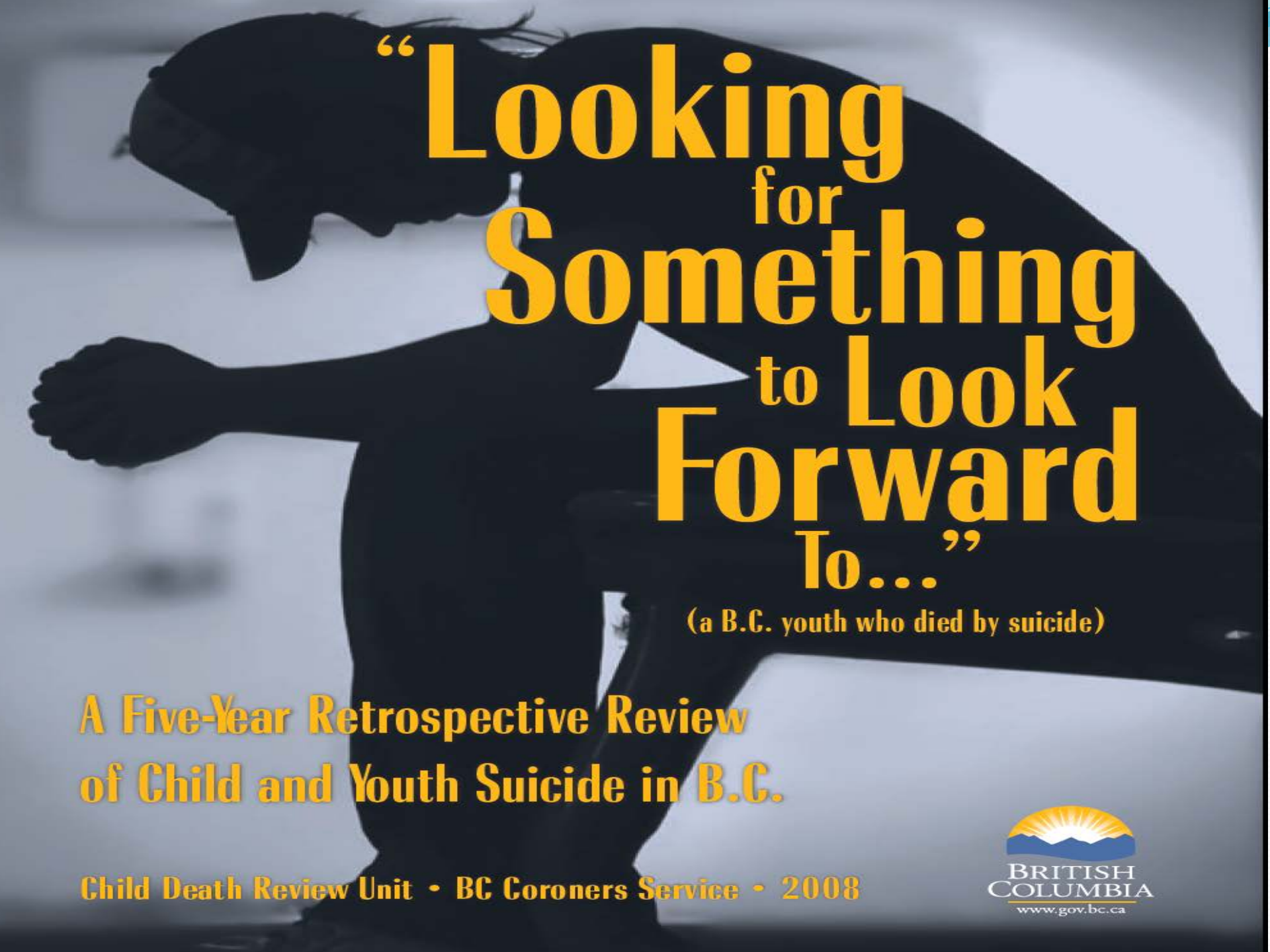
A complicated world for teens

- Demonstrates how social media can be a very negative force for vulnerable teens
- Amanda Todd's video has more than 6 million views, more than 47 thousand likes, and almost 100 thousand comments
- There are a number of RIP Amanda Todd Facebook sites with 100 of thousands of likes
- Adolescents have unprecedented access to unfiltered information about suicide and self injury through social media and the Internet

Canadian suicide trends for 10 to 19-year-olds

Skinner and McFaull, 2012

- In Canada, suicide is 3rd leading cause of death for 10 to 14-year-olds and the 2nd leading cause for 15 to 19 year olds
- In 2008, suicide accounted for 20% of deaths for 10 to 19-year-olds in Canada
- From 1980 to 2008, the suicide rate has increased for girls and has decreased for boys who continue to be at higher risk for suicide completion (twice as likely in 2008 … compared to 5 times as likely in 1980)
- Suffocation is increasingly the method of choice for boys and girls



"Looking for Something to Look Forward To..."

(a B.C. youth who died by suicide)

A Five-Year Retrospective Review of Child and Youth Suicide in B.C.

Child Death Review Unit • BC Coroners Service • 2008

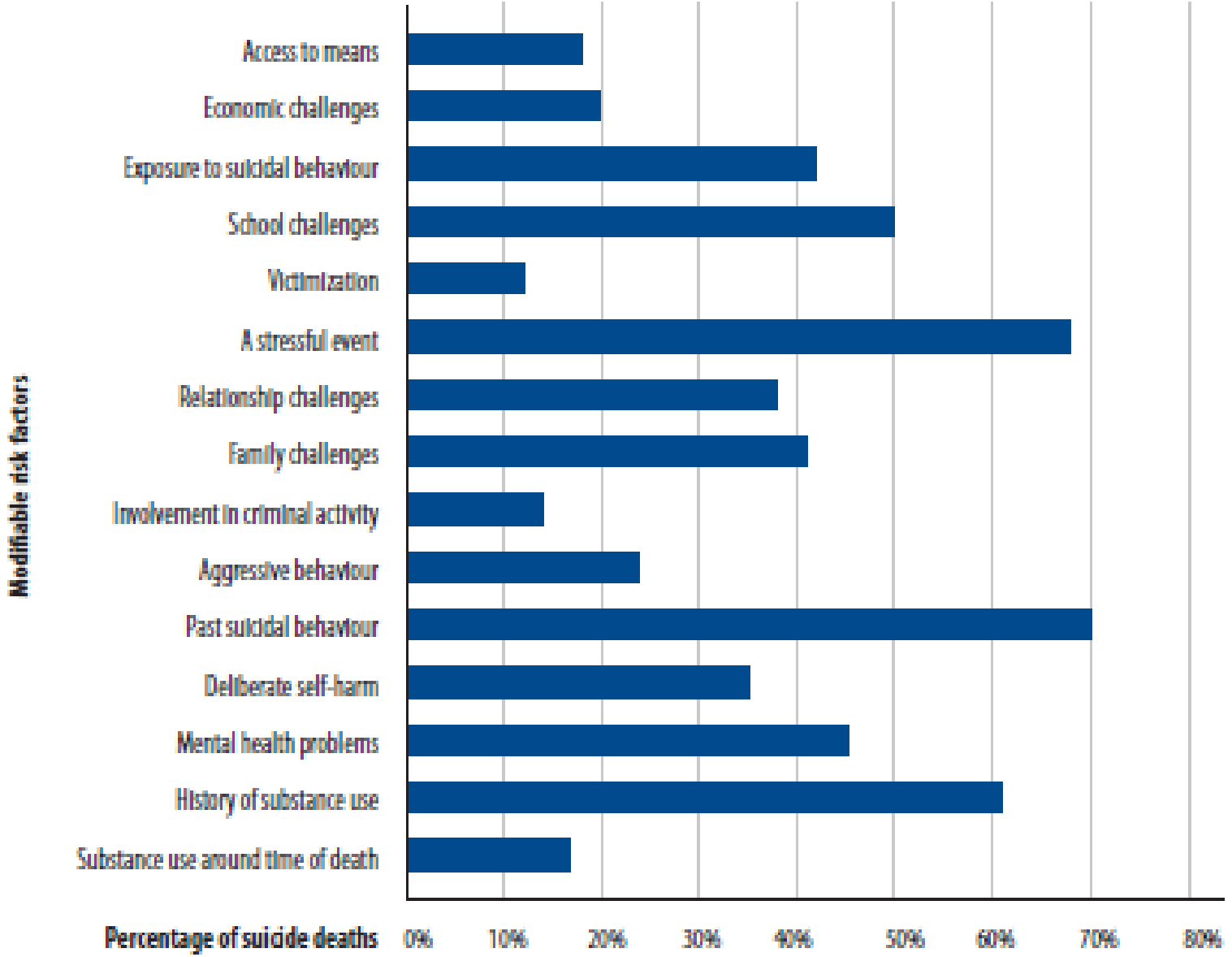
BRITISH COLUMBIA
www.gov.bc.ca

Three main risk profiles of suicide completers in this BC study

- Based on 81 children and youth who completed suicide in BC from 2003 to 2007
  - Youth who had mental health problems (45%)
  - Youth who experienced chronic dysfunction in their interpersonal relationships (44%)
  - Youth who did not fit into to the above groups but experienced a stressful life changing event (26%)

Figure 3.1

Child and youth suicide deaths by modifiable risk factor



Source: Child Death Review Unit, BC Coroners Service

Suicide Behaviour and NSSI in Youth

- 50% of a community based sample had a hx of a suicide attempt (Muehlenkamp and Gutierrez, 2007)
- 70% of inpatients (Nock et al., 2006)
- 73.8% of inpatients and partial hospitalized patients (Nixon et al., 2002) with repetitive SI, at least one SA in past 6 months
- Self injurers who are more likely to attempt:
  - More repulsed by life
  - Have greater amounts of apathy
  - Are more self critical
  - Fewer connections to family members
  - Less fear re suicide

  (Muehlenkamp and Gutierrez 2007)

RESEARCH

Nonsuicidal self-harm in youth: a population-based survey

Mary K. Nixon MD, Paula Cloutier MA, S. Mikael Jansson PhD

Abstract

Background: Nonsuicidal self-harm includes cutting, scratching, burning and minor overdosing. There have been few studies that have examined the rate of self-harm and mental-health correlates among community-based youth. We performed a population-based study to determine the prevalence of nonsuicidal self-harm, its mental-health correlates and help-seeking behaviour.

Methods: We used data from the Victoria Healthy Youth Survey, a population-based longitudinal survey of youth aged 14–21 in Victoria, British Columbia. The survey included questions about the history, method, frequency, age of onset and

Nonsuicidal self-harm includes behaviours such as self-cutting, scratching and burning, done without the conscious intent to take one's life. Onset typically occurs between 14 and 24 years of age.[1,2] The most common reasons for this type of harm are regulation of affect (e.g., to reduce tension or relieve dysphoric feelings), but reasons may also include self-punishment, interpersonal reasons, sensation seeking and anti-dissociation mechanisms.[3] Factors associated with nonsuicidal self-harm include being female, awareness of self harm in peers, family members who self harm, drug misuse, depression, anxiety, impulsivity, disruptive disorders and low self-esteem.[4,5] Suicide ideation and attempts are more likely to be reported among those with repeated nonsuicidal self-harm.[6]

CMAJ 2008;178(3):306-12

Method

- 664 randomly selected youth,
  - aged 12 to 18, participated in wave 1 in 2003
- 580 participated in a second wave in 2005
  - self-harm questions were added

Survey Sample 2005 N=568		
sex	n	%
Male Female	258 310	45.5% 54.6%

Results

Mean age of onset - 15.3, range 10-20

Mean duration – 1.78 yrs

58% stopped (N=50/93)

Have you ever harmed yourself in a way that was deliberate and not intended as a means to end your life? N=568		
	n	%
Yes	96	16.9%
No	472	83.1%

Number of males and females who have self-harmed N=95		
Sex	n	%
Male	23	24.3%
Female	72	75.8%

Which statements best describe the self harm behaviour? (Yes/No)

N=95		
Type	n (yes)	% (yes)
Self Injury as cutting, scratching, self-hitting, etc.	79	83.2%
Ingesting a substance in excess of the prescribed or generally recognized therapeutic dose	28	31.5%
Ingesting a recreational or illicit drug or alcohol as a means to harm yourself	15	16.9%
Ingesting a non-ingestible substance or object	0	0%
Other	8	9.4%

Frequency, Origin and Help Seeking

- How frequently did (does) this self-harm behaviour occur?
  - One occasion only
    - 29%
  - One to three times
    - 33%
  - More than three times
    - 38%
- Where did you get the idea: n=95
  - It was my own idea: 72%
  - Heard about it from my friends: 17%
  - I saw it in a movie or television: 16%
  - I read about it: 12%
  - From family: less than 5%
- 56% had sought help
  - most typically from friends or psychologist/psychiatrist
  - help seeking was positively associated with frequency of the NSSI

Correlates and Predictors of Non-suicidal Self Injury in Youth

M.K. Nixon [1]
G. Barnes [1]
P.Cloutier [2]

Funding: CIHR

1 University of Victoria | British Columbia Canada

2 Centre for Youth & Society, University of Victoria

CHEO
CHILDREN'S HOSPITAL OF EASTERN ONTARIO

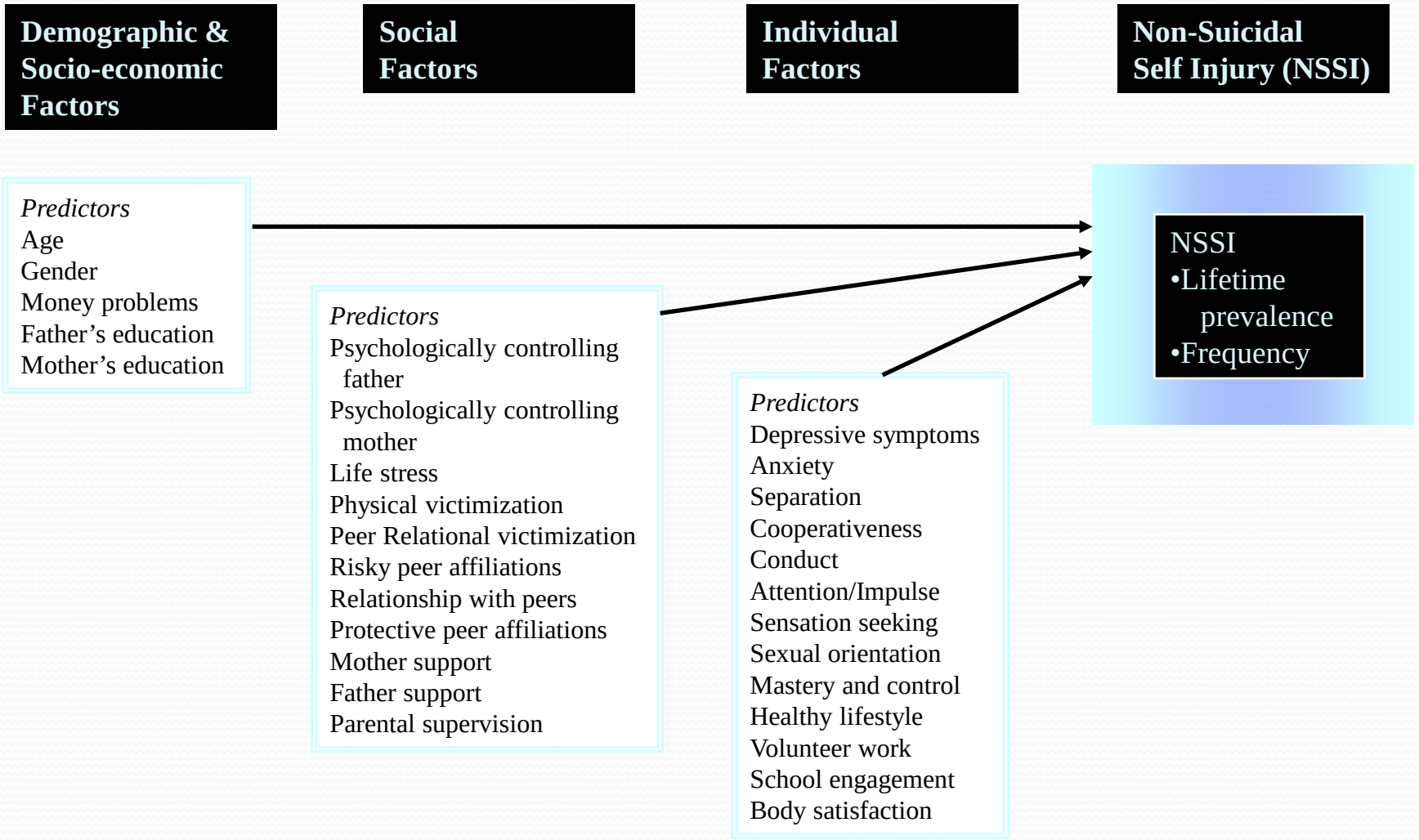
Method

- Health Youth Survey
  - Longitudinal Design/Cross sectional data
    - Three waves of data collected in 2003, 2005 & 2007
  - 580 adolescents completed the 2005 interviews
    - Interviewer administered and self report sections
  - Measures included information on:
    - socioeconomic demographics, neighborhood quality
    - life stress, victimization, peer relationships
    - parental support/quality of relationship
    - mental health (BCFPI), mastery/control, body satisfaction
    - sensation seeking (Zuckerman SS Scale)
    - nonsuicidal self harm (modified CASE definition of DSH)

Lifetime Prevalence of Non Suicidal Self Injury: 13.9%

Have you ever purposely tried to harm yourself without the intent to take your life? If so, how?	N	%
Self injury such as cutting, scratching and self-hitting	79	83
Ingesting a substance in excess of the generally recognized dosage	28	32
Ingesting recreational/illicit drug/alcohol as a means to harm yourself	15	17
Ingesting a non-ingestible substance or object	0	0
Other	8	9

Non-Suicidal Self Injury Predictor Model



Correlations Between Social Factors and Lifetime Prevalence of NSSI

Social Factors	Ever NSSI	Frequency of NSSI
Life stress	.17***	.21
Physical victimization	.10*	.20
Peer relational victimization	.19***	.13
Risky peer associations	.14***	.26***
Relationships with peers	-.03	-.20
Protective peer affiliations	-.01	-.17
Psychologically controlling father	.10*	.14
Psychologically controlling mother	.17***	.36***
Mother support	-.16***	-.30**
Father support	-.07	-.05
Neighborhood quality	-.15***	.01
Parental supervision	-.14***	-.19
Parenting style Index	-.18***	-.32**

Correlations Between Individual Factors and Lifetime Prevalence of NSSI

Individual Factors	Ever NSSI *r*	Frequency of NSSI *r*
Mental Health Symptoms		
Externalizing	.24***	.29*
Internalizing	.26***	.40***
Anxiety	.17***	.23*
Depression	.31***	.42**
Attachment	.15***	.25*
Cooperativeness	.22***	.24*
Conduct	.15***	.12
Attention	.16***	.25*
Sensation seeking	.10*	-.08
Sexual orientation (Phi)	.23***	.05
Mastery/Control	-.19***	-.12
Healthy lifestyle	-.06	-.02
Volunteer work	.02	.05
School engagement	-.08	-.05
Body satisfaction	-.25***	-.36***

Hierarchical Logistic Regression of Predictors of Lifetime Prevalence of NSSI

Step predictors	Step 1	
	OR	(95% CI)
Demographic/SES		
Age	1.00	(0.99-1.02)
Gender	3.72***	(2.04-6.80)
Money problems	2.26**	(1.30-3.90)
Social		
Parenting style Index		
Life stress		
Peer Relational Victimization		
Risky Peers		
Individual		
Body satisfaction		
Sensation seeking		
Depressive symptoms		
Sexual orientation		
Externalizing Symptoms		
Model χ^2	33.61	
Nagelkerke R^2	0.11	

Hierarchical Logistic Regression of Predictors of Lifetime Prevalence of NSSI

Step predictors	Step 1		Step 2	
	OR	(95% CI)	OR	(95% CI)
Demographic/SES				
Age	1.00	(0.99-1.02)	1.00	(0.99-1.02)
Gender	3.72***	(2.04-6.80)	4.08***	(2.17-7.66)
Money problems	2.26**	(1.30-3.90)	1.51	(0.84-2.72)
Social				
Parenting style Index			0.62	(0.36-1.06)
Life stress			1.11	(0.82-1.49)
Peer Relational Victimization			2.91*	(1.09-7.83)
Risky Peers			1.29	(1.00-1.67)
Individual				
Body satisfaction				
Sensation seeking				
Depressive symptoms				
Sexual orientation				
Externalizing Symptoms				
Model χ^2		33.61		56.75
Nagelkerke R^2		0.11		0.18

Hierarchical Logistic Regression of Predictors of Lifetime Prevalence of NSSI

Step predictors	Step 1		Step 2		Step 3	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Demographic/SES						
Age	1.00	(0.99-1.02)	1.00	(0.99-1.02)	1.01	(0.99-1.02)
Gender	3.72***	(2.04-6.80)	4.08***	(2.17-7.66)	3.72***	(1.89-7.29)
Money problems	2.26**	(1.30-3.90)	1.51	(0.84-2.72)	1.11	(0.58-2.12)
Social						
Parenting style Index			0.62	(0.36-1.06)	1.10	(0.58-2.07)
Life stress			1.11	(0.82-1.49)	1.06	(0.77-1.47)
Peer Relational Victimization			2.91*	(1.09-7.83)	1.56	(0.52-4.73)
Risky Peers			1.29	(1.00-1.67)	1.18	(0.89-1.56)
Individual						
Body satisfaction					0.64	(0.39-1.05)
Sensation seeking					1.10	(0.97-1.25)
Depressive symptoms					3.42**	(1.54-7.59)
Sexual orientation					2.63**	(1.28-5.42)
Externalizing Symptoms					2.33	(0.56-9.73)
Model χ^2		33.61		56.75		94.80
Nagelkerke R^2		0.11		0.18		0.30

Hierarchical Linear Regression of Predictors and Frequency of NSSI

	Step 1
	β
Demographic & Socio-economic Predictors	
Age	.19
Gender	.08
Father Education	-.25*
Social Predictors	
Parenting Style	
Individual Predictors	
Depressive Symptoms	
R^2 Change	.09
R^2 Total	.09

Hierarchical Linear Regression of Predictors and Frequency of NSSI

	Step 1 β	Step 2 β
Demographic & Socio-economic Predictors		
Age	.19	.20
Gender	.08	.06
Father Education	-.25*	-.19
Social Predictors		
Parenting Style		-.29*
Individual Predictors		
Depressive Symptoms		
R^2 Change	.09	.08
R^2 Total	.09	.17

Hierarchical Linear Regression of Predictors and Frequency of NSSI

	Step 1 β	Step 2 β	Step 3 β
Demographic & Socio-economic Predictors			
Age	.19	.20	.19
Gender	.08	.06	.09
Father Education	-.25*	-.19	-.17
Social Predictors			
Parenting Style		-.29*	-.14
Individual Predictors			
Depressive Symptoms			.35**
R^2 Change	.09	.08	.10
R^2 Total	.09	.17	.27

Summary

- Engaging in non suicidal self injury is likely determined by a constellation of demographic, social and individual factors
- In this model
  - lifetime presence of NSSI was predicted by:
    - Female gender
    - Depressive symptoms
  - Frequency of NSSI was predicted by
    - Depressive symptoms but not gender
- In lifetime presence of NSSI, the contribution of peer relational victimization may be mediated by depressive symptoms
- In more frequent NSSI the contribution of negative parenting behavior may be mediated by depressive symptoms
- Future Research: longitudinal studies of risk and protective factors of NSSI

Study of Adults with Borderline PD

Stanley, 2001

- NSSI plus hx SA vs SA with no hx of NSSI
  - More
    - depression,
    - hopelessness
    - aggressiveness
    - anxiety
    - impulsiveness
    - higher suicidal ideation
- Limitations: BPD only, female only sample

Adolescent Outpatient Study

Guertin, 2001

- NSSI and SA vs SA without hx of NSSI
  - Higher on
    - depression
    - loneliness
    - anger
    - risk-taking behaviours
  - More likely to have a psychiatric dx of
    - depression
    - dysthymia
    - oppositional defiant d/o

Suicide after Deliberate Self Harm: A 4 year Cohort Study

Cooper, J et al, 2005 Am J of Psychiatry

- 7968 DSH attendees at ER Depts of four hospitals in NW UK, 1997-2001
  - Median age 30
  - 57% female
- 15.5% repeated DSH during the study
- 60 suicides in cohort during f/u (22% had no previous DSH to index episode, 18.3% repeated DSH prior to CS)
  - Approx 30 fold increase risk of suicide than the general population with this cohort
    - Males with index DSH were more like to complete suicide than females

Suicide after Deliberate Self Harm: A 4 year Cohort Study

Cooper, J et al, 2005 Am J of Psychiatry

- Suicide rates were highest in the first 6 months after the index self harm episode
- Independent predictors of subsequent suicide
  - Avoiding discovery at the time of index DSH
  - Not living with a close relative
  - Previous psychiatric treatment
  - Alcohol misuse
  - Physical health problem
  - NSSI

Emergency Services and NSSI in Youth: Characteristics and Referral Patterns

P. Cloutier, MA[1,2] , C. Gray, MD FRCPC[1,3] , A. Kennedy, PhD[1], M.K. Nixon, MD FRCPC [4]

1 CHILDREN'S HOSPITAL OF EASTERN ONTARIO

2 CHEO Research Institute Institut de recherche

3 UNIVERSITY OF OTTAWA

4 University of Victoria | British Columbia Canada

Objectives

- Determine the prevalence rate of NSSI in patients receiving a crisis assessment in the ED
- Compare the similarities and differences between pediatric mental health presentations to the ED for those with NSSI to those without NSSI
- Determine the overlap between NSSI and suicidal ideation in a pediatric emergency sample

Method

Timeline: April 1, 2005- March 31, 2006

Procedure: Patients arriving at the ED for a mental health emergency

Triaged to: 1) Crisis Intervention Worker (CIW)

-masters level clinicians

-standard clinical battery of psychometric measures

-emphasis on risk assessment

-empowered to discharge from the ED

with appropriate follow-up instruction

-consultation with psychiatry on call as necessary

2) Emergency Department Physician

-when there are immediate medical concerns

(e.g., ingestion, stitches for a self-inflicted would)

Method (cont'd)

Measures:

Self-reports:

- Children's Depression Inventory (CDI; Kovacks, 1992)

  a self-report measure of depressive symptoms in children and adolescents aged 7 to 17 years

- Multidimensional Anxiety Scale for Children: 10 Items (MASC-10; J. March, 1997).

  a self-report measure of anxiety in young persons 8 to 19 years old

- Conners-Wells Adolescent Self-Report Scale – Short Form (CASS:S: Conners & Wells, 1997)

  a self-report measure of problem behaviors in children and adolescents aged 12 to 17

- Caregiver Perception Survey (CPS; RPESCY, 2006)

  a parent–report of concerns and expectations of their ED visit

Method (cont'd)

Measures:

Clinician-report:

- Acuity of Psychiatric Illness Scale-Child and Adolescent Version (CAPI; Lyons, 1998)

-Mental health Clinician assigns a score ranging from 0 (no/none) to 3 (severe) assessing: (over the past 24 hours)

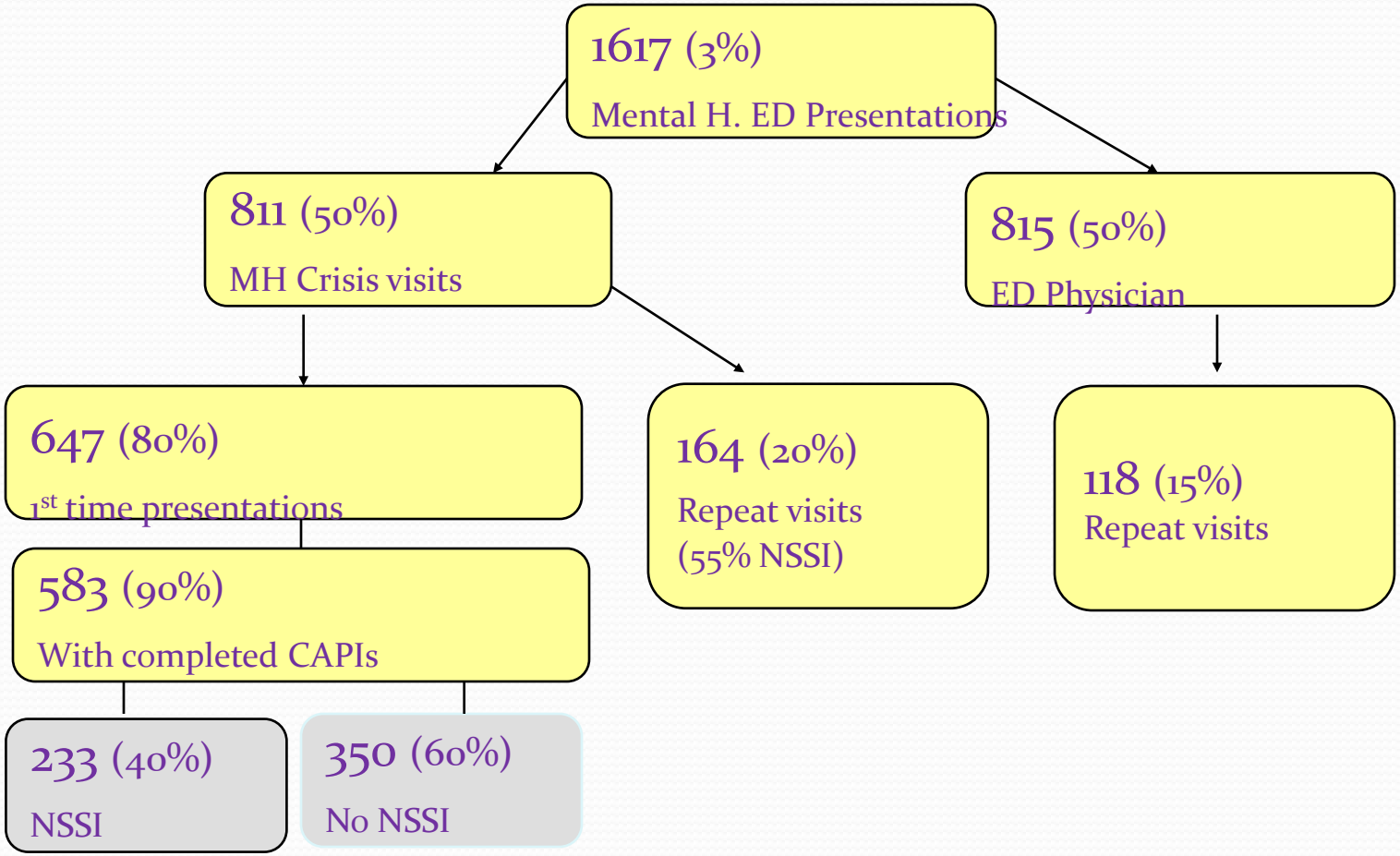
Risk Behaviour (suicidal ideation, self-mutilation (NSSI) aggression toward people, aggression toward objects)

Symptoms (impulsivity, reality assessment, non-compliance, depression, anxiety, sleep disruption, activity level, sexualized behaviour)

Functioning (educational, family, peer, nutritional)

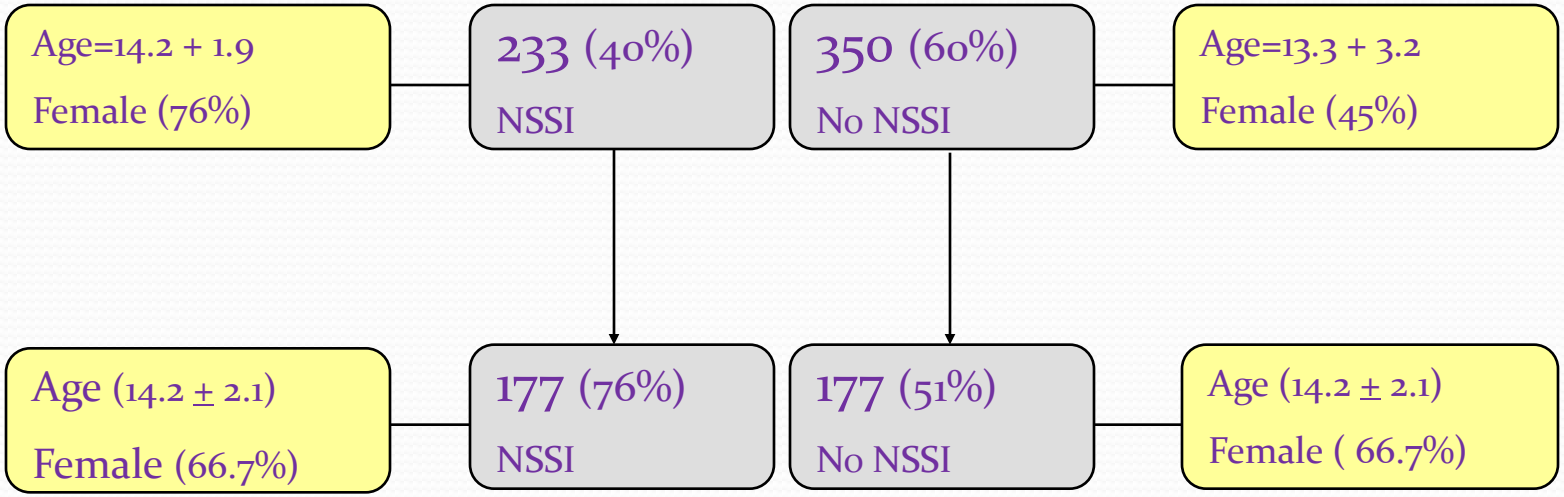
Systems Support (parental supervision and monitoring, safety, organization of services)

Patient flow chart



Sample matching

The self-injuring and non-self-injuring groups were matched on age and sex



Results (Clinical Characteristics)

- Significant Clinical differences:

  -Currently receiving counseling (49% vs. 38%)

  -Previous psychiatric admission ((23% vs. 14%)

- No significant Clinical differences:

  -Previous psychiatric history (56% vs 54%)

  -Medical attention required (17% vs. 19%)

  -Inpt Admission rates at current visit (24% vs.16%)

Results (Self-reports)

Scale	NSSI	No NSSI	P value
CDI % in the clinical range	77.8 (14.8) 81 %	69.4 (17.3) 56 %	.000 .000
MASC – 10 % in the clinical range	59.8 (12.9) 37 %	57.2 (12.2) 26 %	ns .049
Conners – Wells			
Conduct Problems % in the clinical range	64.8 (13.2) 43 %	59.6 (12.7) 28 %	.003 .018
Hyperactivity % in the clinical range	57.3 (11.0) 33 %	54.9 (11.4) 28 %	ns ns
ADHD Index % in the clinical range	66.1 (10.5) 52 %	62.7 (11.4) 45 %	.020 ns

Results re suicidal ideation

(NSSI vs no NSSI)

NSSI group: 86% had some level of suicidal ideation at presentation to ER

Does severity of suicidal ideation differ between groups? YES

0=No evidence of Suicidal Ideation (14% vs. 43%)

1=mild (mention of death an dying) (47% vs. 33%)

2=moderate (consistent evidence, wish to die, thoughts about suicide) (25% vs.18%)

3=severe (significant Suicidal Ideation or gesture including plan or active gesture or threats, express wish to die) (15% vs. 6%)

Mueklenkamp and Guiterrez, 2007

- 450 America high school students
- 4 groups: no hx of NSSI, NSSI only, NSSI plus SA, SA only
  - No hx of NSSI
    - Less depression,
    - less suicidal ideation,
    - more reasons for living / than all three other groups
  - NSSI and SA
    - More depression and suicidal ideation,
    - fewer reasons to live /than NSSI only
  - NSSI only and NSSI w SA did not differ on these constucts from those who were SA only
    - likely result of small sample size, 10 in SA group

Jacobson et al, 2008

- 227 adolescent outpatients at an American hospital
- NSSI and SA group
  - Self injured for longer periods of time than other groups
  - More likely to have a psychiatric dx such as major depression or PTSD
  - Only psychiatric dx related to NSSI alone was Borderline PD
- NSSI only
  - Rates of suicidal ideation and depression were similar to those with no hx of NSSI
    - Suggests in this group that reasons for engaging in NSSI are different from motivations for attempting suicide

J Youth Adolescence
DOI 10.1007/s10964-009-9465-1

EMPIRICAL RESEARCH

Characteristics and Co-occurrence of Adolescent Non-Suicidal Self-Injury and Suicidal Behaviours in Pediatric Emergency Crisis Services

Paula Cloutier · Jodi Martin · Allison Kennedy · Mary K. Nixon · Jennifer J. Muehlenkamp

Received: 23 July 2009 / Accepted: 9 October 2009

Abstract During the potentially tumultuous adolescent period, non-suicidal self-injury (NSSI) and suicide attempts are relatively common, particularly amongst youth who present to mental health services. These phenomena frequently co-occur but their relationship is unclear. This study evaluated clinical data from 468 youth between the ages of

suicide attempt group presenting with the highest level of psychopathology. This study underscores the necessity of assessing suicidal ideation and NSSI in all youth presenting to mental health services.

Keywords Adolescents · Non-suicidal self-injury ·

J. Youth Adolescence 2010, 39 259-269.

NSSI +/- Suicide Attempt Results: n=468 (age 12-17)

- Presentations to ER are high overall in this group
  - 50% presenting to ED crisis services had self harmed (includes s attempts) within the previous 24 hrs
    - 91% were classified as NSSI only
    - 5% suicide attempt only
    - 4% were both NSSI and suicide attempt
  - Differences between these three groups on depressive symptoms, suicidal ideation and impulsivity
    - NSSI with suicide attempt group
      - highest levels of psychopathology
    - NSSI only group was
      - lower on impulsivity
      - similar re depressive symptoms to SA and NSSI plus SA

Summary

- Youth presenting with NSSI without a hx of SA require an evaluation regarding depressive sy's
- Consistent with suicide literature, youth with SA have higher scores on impulsivity
- Youth with a hx of both NSSI and SA present with significant levels of psychopathology and therefore treatment planning and expectations must be matched accordingly

Predictors of Spontaneous and Systematically Assessed Suicidal Adverse Events in the Treatment of SSRI-Resistant Depression in Adolescents (TORDIA) study

Brent et al, Am J Psychaitry, 2009

- Subjects randomized to either another SSRI or venlafaxine, with or without CBT
  - Suicide and NSSI events were assessed by spontaneous report in the first 181 subjects and systematic ally for the last 153
- Higher rates of suicidal and NSSI but not serious adverse events were detected using systematic monitoriing
- Suicide event predicted by high baseline s ideation, family conflict and drug and alcohol use
- NSSI predicted by previous hx of NSSI

TORDIA: Suicide and NSSI adverse events

- No main effects of treatment but venlafaxine was associated with a higher rate of self harm adverse events in those with higher suicidal ideation

- Adjunct use of benzodiazepines (small n of 10)was associated with higher rate of both suicidal and NSSI adverse events

Clinical and psychosocial predictors of SA and NSSI in the Adolescent Depression Antidepressants and Psychotherapy trial (ADAPT)

Wilkinson et al, 2011 Am J Psychiatry

- 164 adolescents w MDD, tx study for CBT added to SSRIs and specialist care
- NSSI measured in the month before baseline (pre-baseline) and after 28 wks of treatment
- Previous month depressive symptoms, including suicidal ideation and at 6, 12 and 28 wks
- Independent predictors of SA at 28 wks
  - high suicidal ideation ratings at baseline
  - prebaseline presence of NSSI,
  - female gender,
  - being younger
  - baseline hopelessness
  - anxiety disorder
  - Poor family function at baseline

Wilkinson et al 2011, cont.

- Incidence of SA during tx
  - ten times higher in pts w prebaseline NSSI than those w good family functioning and no NSSI
  - NSSI was a stronger predictor of future SA during tx than hx of previous SA
- Overall, SA and NSSI were less frequent during tx than at prebaseline
- Limitations:
  - Lack of data on known predictors of SA incl substance abuse and fam hx of suicide
  - This was a secondary analysis which can produce unwarranted results therefore study needs replication

Main Conclusions from this study

- NSSI may increase risk for SA including patients undergoing treatment for depression

- Importance of need to address family function in adolescents with hx of SA

Some Practical Tools for Screening and Assessing NSSI and history of Suicidal Behaviour

Youth Stress and Coping Questionnaire: A Screening Tool for Mental Health Clinicians

Youth Stress and Coping Questionnaire[1]

RPESCY, Children's Hospital of Eastern Ontario, Ottawa, Ontario, Canada

Name: _____ **Gender:** M F

Today's date: ____/____/____ **Age:** _____

Youth deal with lots of stress in their lives. Finding out about how you cope with stress will help us to help you better. Below you will find a list of ways that youth might deal with stress.

Instructions: Please read each item and indicate whether you:

- **(0) Never** used this way of dealing with stress
- **(1)** Used this way of dealing with stress **only once**
- **(2)** Used this way of dealing with stress **a few times**
- **(3) Frequently** used this way of dealing with stress

	NEVER	ONLY ONCE	FEW TIMES	FREQUENTLY
1. Cry	0	1	2	3
2. Learn to live with it	0	1	2	3
3. Hit someone	0	1	2	3
4. Talk to someone	0	1	2	3
5. Do an activity with others	0	1	2	3
6. Do an activity by myself	0	1	2	3
7. Try to solve the problem	0	1	2	3
8. Do risky things	0	1	2	3
9. Make jokes about the problem	0	1	2	3
10. Pray	0	1	2	3
11. Do drugs	0	1	2	3
12. Drink alcohol	0	1	2	3
13. Smoke cigarettes	0	1	2	3
14. Chat online (e.g., MSN)	0	1	2	3
15. Tell myself it doesn't matter	0	1	2	3
16. Do something about the situation	0	1	2	3
17. Make fun of the situation	0	1	2	3
18. Hurt myself on purpose	0	1	2	3
19. Convince myself the stress isn't there	0	1	2	3
20. Give up on dealing with the situation	0	1	2	3
21. Express my upset feelings	0	1	2	3
22. Get help from other people	0	1	2	3
23. Find the positive in the situation	0	1	2	3
24. Gamble (e.g., online, lottery tickets, sports)	0	1	2	3
25. Meditate or do relaxation exercises	0	1	2	3
26. Argue with people	0	1	2	3
27. Play violent video games	0	1	2	3
28. Play online interactive fantasy games (e.g., WoW)	0	1	2	3
29. Other online activities (Please specify): _____	0	1	2	3

1. Do you do risky things? ☐ **Yes** ☐ **No**

If you do risky things, please check off the ones that you tend to do:

☐ Stealing ☐ Alcohol use ☐ Vandalism (e.g., graffiti/tagging, breaking windows)

☐ Reckless driving ☐ Internet porn ☐ Drug use ☐ Risky Sex

☐ Physical risks (e.g., dangerous bike/skateboard tricks, jumping off of high surfaces)

☐ Gambling ☐ Other (Please explain): _____

2. Have you ever hurt yourself on purpose without the intention to kill yourself? ☐ Yes ☐ No

If you answered "No", please go on to Section B

If you answered "Yes", please complete both Section A and Section B

Section A

1. Please indicate how you have hurt yourself: _____						
Please circle one choice for the following questions:						
2. When did you ***first start*** hurting yourself on purpose ***without*** the intention to kill yourself?	LAST FEW DAYS	A COUPLE OF WEEKS AGO	ONE MONTH AGO	BETWEEN 1 MONTH AND 6 MONTHS AGO	BETWEEN 6 MONTHS AND 1 YEAR AGO	MORE THAN 1 YEAR AGO
3a. How often do you ***think*** about injuring yourself ***without*** the intention to kill yourself?	2 TO 3 TIMES A YEAR	MONTHLY	2 TO 3 TIMES A MONTH	WEEKLY	DAILY	
3b. How often do you ***actually injure*** yourself, ***without*** the intention to kill yourself?	2 TO 3 TIMES A YEAR	MONTHLY	2 TO 3 TIMES A MONTH	WEEKLY	DAILY	
4. When was the last time you hurt yourself on purpose ***without*** the intention to kill yourself?	MORE THAN A MONTH AGO	IN THE LAST MONTH	IN THE LAST WEEK	YESTERDAY	TODAY	

Section B

Have you ever thought about killing yourself? ☐ Yes ☐ No

If you answered "No", the questionnaire is complete.

If you answered "Yes", please complete the following questions (Please circle one choice for each question).

1. How often in the past **year** have you ***thought*** about killing yourself?	NOT AT ALL	ONE TO 5 TIMES	MONTHLY	WEEKLY	DAILY
2. Have you ever made an actual attempt to take your life?		NO	YES		
3. How many times have you made an actual attempt to take your life? (indicate a number) _____					
4. When was the last time you made an actual attempt to take your life? _____					

[1] Based on the "How I Deal with Stress Questionnaire" (Heath & Ross, 2002) and the Brief COPE (Carver, 1992)

Ottawa Self Injury Inventory (OSI)

13. How did/do you injure yourself (without meaning to kill yourself)?
Please (√) all that apply and put an (X) beside the most frequent method of self-injury.

WHEN YOU FIRST STARTED		CURRENTLY (past month if still self-injuring)	
√ all that apply	(X) top reason	√ all that apply	(X) top reason
✓ cutting	(X)	✓ cutting	(X)
✓ scratching	( )	✓ scratching	( )
✓ interfering with wound healing	(X)	✓ interfering with wound healing	( )
✓ burning	( )	✓ burning	( )
✓ biting	( )	✓ biting	( )
✓ hitting	( )	hitting	( )
✓ hair pulling	( )	hair pulling	( )
severe nail biting and/ or nail injuries	( )	severe nail biting and/ or nail injuries	( )
✓ piercing skin with sharp pointy objects	( )	piercing skin with sharp pointy objects	( )
✓ piercing of body parts	( )	piercing of body parts	( )
✓ excessive use of street drugs	( )	excessive use of street drugs	( )
✓ excessive use of alcohol	( )	excessive use of alcohol	( )
trying to break bones	( )	trying to break bones	( )
headbanging	( )	headbanging	( )
✓ taking too much medication	( )	taking too much medication	( )
taking too little medication	( )	taking too little medication	( )
eating or drinking things that are not food	( )	eating or drinking things that are not food	( )
other (please list)	( )	other (please list)	( )

14. Why do you think you started and if you continue, why do you still self-injure (without meaning to kill yourself)? Please circle the number that best represents how much your self-injury is due to that reason.

Circle "0" if it has never been a reason that you self-injure and "4" if it has always been a reason that you self-injure.

WHY DID YOU START?	never a reason ... always a reason	IF YOU CONTINUE WHY DO YOU CONTINUE?	never a reason ... always a reason
1. to release unbearable tension	0 1 2 3 (4)	1. to release unbearable tension	0 1 2 3 (4)
2. to experience a "high" that feels like a drug high	0 (1) 2 3 4	2. to experience a "high" that feels like a drug high	(0) 1 2 3 4
3. to stop my parents from being angry with me	(0) 1 2 3 4	3. to stop my parents from being angry with me	(0) 1 2 3 4
4. to stop feeling alone and empty	0 1 (2) 3 4	4. to stop feeling alone and empty	0 1 (2) 3 4
5. to get care or attention from other people	(0) 1 2 3 4	5. to get care or attention from other people	(0) 1 2 3 4
6. to punish myself	0 1 2 3 (4)	6. to punish myself	0 1 2 3 (4)
7. to provide a sense of excitement that feels exhilarating	0 1 (2) 3 4	7. to provide a sense of excitement that feels exhilarating	0 1 2 (3) 4
8. to relieve nervousness/fearfulness	0 1 2 (3) 4	8. to relieve nervousness/fearfulness	0 1 2 (3) 4

	never a reason			sometimes a reason	always a reason
9. to avoid getting into trouble for something I did	(0)	1	2	3	4
10. to distract me from unpleasant memories	0	1	2	(3)	4
11. to change my body image and/or appearance	0	1	(2)	3	4
12. to belong to a group	(0)	1	2	3	4
13. to release anger	0	1	2	3	(4)
14. to stop my friends/boyfriend/girlfriend from being angry with me	(0)	1	2	3	4
15. to show others how hurt or damaged I am	(0)	1	2	3	4
16. to show others how strong or tough I am	(0)	1	2	3	4
17. to help me escape from uncomfortable feelings or moods	0	1	2	(3)	4
18. to satisfy voices inside or outside of me telling me to do it	(0)	1	2	3	4
19. to experience physical pain in one area, when the other pain I feel is unbearable	0	1	2	(3)	4
20. to stop people from expecting so much from me	0	(1)	2	3	4
21. to relieve feelings of sadness or feeling "down"	0	1	2	3	(4)
22. to have control in a situation where no one can influence me	0	1	(2)	3	4
23. to stop me from thinking about ideas of killing myself	0	(1)	2	3	4
24. to stop me from acting out ideas of killing myself	0	1	2	(3)	4
25. to produce a sense of being real when I feel numb and "unreal"	0	1	2	(3)	4
26. to release frustration	0	1	2	3	(4)
27. to get out of doing something that I don't want to do	(0)	1	2	3	4
28. for no reason that I know about - it just happens sometimes	0	1	2	(3)	4
29. to prove to myself how much I can take	0	1	(2)	3	4
30. for sexual excitement	0	1	2	(3)	4
31. to diminish feeling of sexual arousal	(0)	1	2	3	4
32.					
33. other (please specify) _____	0	1	2	3	4

	never a reason			sometimes a reason	always a reason
9. to avoid getting into trouble for something I did	(0)	1	2	3	4
10. to distract me from unpleasant memories	0	1	(2)	3	4
11. to change my body image and/or appearance	0	(1)	2	3	4
12. to belong to a group	(0)	1	2	3	4
13. to release anger	0	1	2	3	(4)
14. to stop my friends/boyfriend/girlfriend from being angry with me	(0)	1	2	3	4
15. to show others how hurt or damaged I am	(0)	1	2	3	4
16. to show others how strong or tough I am	(0)	1	2	3	4
17. to help me escape from uncomfortable feelings or moods	0	1	(2)	3	4
18. to satisfy voices inside or outside of me telling me to do it	(0)	1	2	3	4
19. to experience physical pain in one area, when the other pain I feel is unbearable	0	1	(2)	3	4
20. to stop people from expecting so much from me	(0)	1	2	3	4
21. to relieve feelings of sadness or feeling "down"	0	1	2	(3)	4
22. to have control in a situation where no one can influence me	0	(1)	2	3	4
23. to stop me from thinking about ideas of killing myself	0	(1)	2	3	4
24. to stop me from acting out ideas of killing myself	0	(1)	2	3	4
25. to produce a sense of being real when I feel numb and "unreal"	0	1	2	(3)	4
26. to release frustration	0	1	2	3	(4)
27. to get out of doing something that I don't want to do	(0)	1	2	3	4
28. for no reason that I know about - it just happens sometimes	0	1	2	(3)	4
29. to prove to myself how much I can take	0	1	2	(3)	4
30. for sexual excitement	0	1	2	3	(4)
31. to diminish feeling of sexual arousal	(0)	1	2	3	4
32. I am "addicted" to doing it	0	1	2	3	(4)
33. other (please specify) _____	0	1	2	3	4

OSI Validity Study

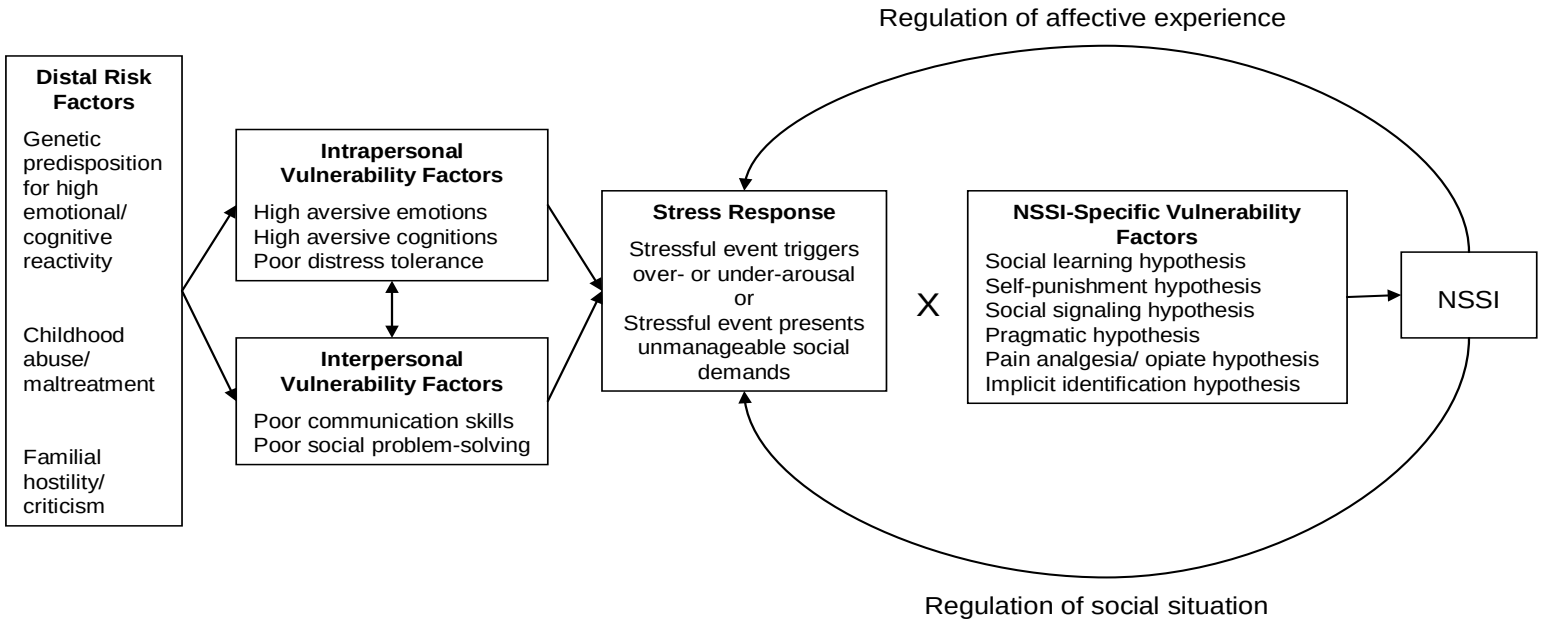
Martin et al, 2012

- As part of the validity study an exploratory factor analysis was performed on functions of NSSI plus Addictive Features
- Four factors were apparent in this analysis
  - Internal Emotional Regulation
    - To stop me from from thinking of ideas to kill myself
    - To relieve feelings of sadness or feeling down
  - Social Influence
    - To get out of something I don't want to
  - External Emotional Regulation
    - To deal with anger
    - To deal with frustration
  - Sensation Seeking
    - To experience a high like a drug
    - To prove to myself how much I can take

- **Functions of NSSI** ***(Nock & Prinstein, 2004, 2005):***
  - **Affect & Social Regulation either via mechanism of +RF or -RF**

	-RF	+RF
Affect Regulation	**Suppress negative affect (e.g., sadness)**	**Generate feelings (e.g., feel alive)**
Social Regulation	**Suppress negative social stimulus (e.g., conflict)**	**Generate positive social stimulus (e.g., support)**

During assessment & treatment, keep in mind Nock's evidence-based integrated theoretical model



- Nock M (2009). Why do people hurt themselves? New insights into the nature & functions of self-injury. Curr Dir Psychol Sci. 18:78–83
- Nock M. (in-press, online 9/09) Self-Injury Annual Review of Clinical Psychology

Editorial by D. Brent, JACAP 2012

- Interpersonal theory of Suicide
  - Posits that NSSI, as well as traumatic experiences like child abuse desensitizes the individual to pain and fear of self destruction
    - makes suicidal behaviour more likely to occur
- Is NSSI an early signal of a diathesis that can lead to suicidal behavior?
  - NSSI may not directly lead to suicidal behaviour but if the needs and deficits behind NSSI are not addressed……

In Summary

- NSSI may be a better marker of future suicidal behavior than previous hx of suicide attempts but this research needs to be replicated
- NSSI may repond when underlying depression is treated
- Suicidal behaviour is known to not always responsive to treatment of depression
  - Family difficulties and impulsivity play a role
  - Functions of NSSI and suicidal behaviour are different

INSYNC

The Network

- Researchers
- Joint Publications
- Joint Presentations
- Network Meetings

Community Resources

- General information
- For Youth
- For Family & Friends
- For Professionals
- Other useful links

www.insync-group.ca

Thank you