Non Suicidal Self Injury in Youth:

A Review for Health Care Professionals

Kadang Kerbau Woman's and Children's Hospital
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Objectives

- Review some of the research in NSSI
  - Prevalence
  - Motivations for NSSI
  - Correlates and Predictors of NSSI
  - NSSI and co-occurrance with suicidal behaviour
- Screening for NSSI
- Initial approaches to engaging and assessing youth with NSSI
- Approaches and resources for Primary Care and Emergency Physicians

Defining Non-Suicidal Self Injury

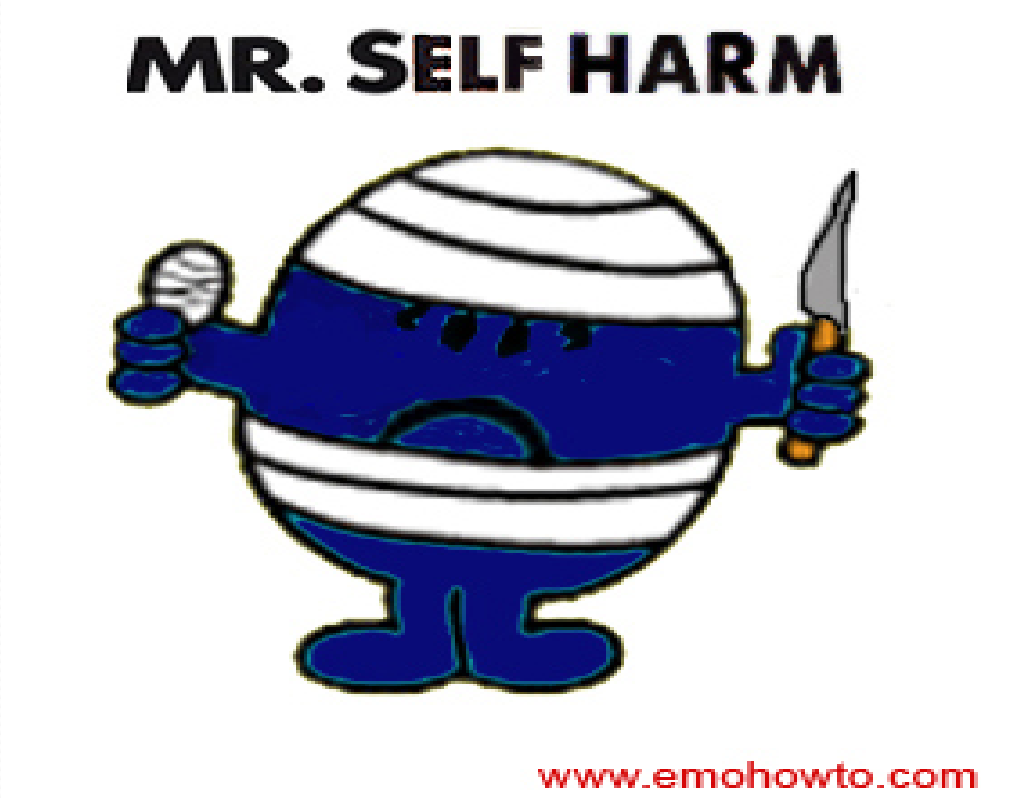
Nixon and Heath, 2009

- Purposefully inflicting injury that results in immediate tissue damage
- Without suicidal intent
- Not socially sanctioned within one's culture
- Nor for display
- Occurs within the broader range of non-suicidal self harm behaviors such as minor overdosing, ingesting non ingestible objects etc.

Types of Self Injury/Age of Onset

- Scratching
- Cutting
- Burning
- Self hitting
  - In community samples, the majority self injure once or twice
  - Those who repeat often have multiple methods
- Arms, hands, wrists, thighs, stomach
- Mean age of onset: 12-15 years

Not just a girl thing



The Virtual Cutting Edge…

- Adolescents group themselves by common interest and behaviour both on and off line
- Study of 400 self injury message boards, most used by females, 12 to 20 years old
- Other issues such as depression, eating disorders and suicide often mentioned on message boards
- Conclusion: Youth have easy access to an abundance of NSSI related content online, which may reinforce NSSI as an acceptable behaviour and/or perpetuate its occurrence in schools and other community settings as a means of group identification

Whitlock, J., Powers, J. and J. Eckenrode. (2006). The Virtual Cutting Edge: The Internet & Adolescent Self-Injury. *Developmental Psychology*, 42(3).

RESEARCH

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

CMAJ 2008;178(3):306-12

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]

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 asked

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

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%

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%

Frequency and Origin

- 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%

Why?

Affect Regulation and Addictive Aspects of Repetitive Self-Injury in Hospitalized Adolescents

MARY K. NIXON, M.D., PAULA F. CLOUTIER, M.A., AND SANJAY AGGARWAL, M.D.

ABSTRACT

Objective: The incidence of self-injurious behavior (SIB) in adolescent psychiatric inpatients has been reported to be as high as 61%, yet few data exist on the characteristics and functional role of SIB in this population. Because of the repetitive nature of SIB and its potential to increase in severity, features of SIB and its specific reinforcing effects were examined. **Method:** Participants were 42 self-injuring adolescents admitted to a hospital over a 4 month period. Data sources consisted of self-report questionnaires and medical chart review. **Results:** Mean age was 15.7 ± 1.5 years. Reported urges to self-injure were almost daily in 78.6% of the adolescents ($n = 33$), with acts occurring more than once a week in 83.3% ($n = 35$). The two primary reasons endorsed for engaging in self-injury were "to cope with feelings of depression" (83.3%, $n = 35$) and "to release unbearable tension" (73.8%, $n = 31$). Of the sample, 97.6% ($n = 41$) endorsed three or more addictive symptoms. **Conclusions:** SIB in hospitalized adolescents serves primarily to regulate dysphoric affect and displays many addictive features. Those with clinically elevated levels of internalized anger appear at risk for more addictive features of this behavior. *J. Am. Acad. Child Adolesc. Psychiatry*, 2002, 41(11):1333–1341. **Key Words:** self-injury, addiction, affect regulation.

Various terms such as "delicate self-cutting," "self-wounding," "pathological self-mutilation," and "deliberate self-harm" have been used to describe a range of self-injurious behavmonly known as a symptom of borderline personality disorder (BPD) (American Psychiatric Association, 1994).

In a recent study, Briere and Gil (1998) reported adult

Demographics (n=42)

- 42/50 had SI freq of at least 1/month over past 6 months
- age: 15.7 ± 1.5
- female 85.7%, male 14.3%
- age of onset 12.7±3.2
  - males 15.2 ± 1.7
  - females 12.3 ± 3.2
- Inpatients: 27/91 (30%)
- Partial hospitalization pts: 15/39 (39%)

Clinical Characteristics

- **GAF** 49.2 ± 9.6
- **BDI-II** 37.6 ± 10.4 (Severe range (≥ 29) 78.6% (33))
- **STAXI** (percent in the clinical range)

state anger	59.5% (25)
trait anger	31.0% (13)
internalized anger	52.4% (22)
externalized anger	52.4% (22)
anger control	16.7% (07)

- **Self -reported (Self Injury Inventory)**

problems with drugs/alcohol	42.9% (18)
eating disorders	50.0% (21)

Why do you self-injure?
(mean number of reasons 8.2 ±3.8)

- Cope with depression ---------- 83.3% (35)
- Release unbearable tension ---------- 73.8% (31)
- Cope with nervousness/fear---------- 71.4% (30)
- Express frustration ---------- 71.4% (30)
- Express anger/revenge ---------- 66.7% (28)
- Feel pain in one area, when the other pain I feel is unbearable ---------- 61.9% (26)
- Distraction from unpleasant memories------ 59.5% (25)
- Punish self for being bad / bad thoughts ----- 50.0% (21)
- Stop suicidal ideation/attempt ---------- 47.6% (20)
- Stop feeling alone/empty ---------- 42.9% (18)

endorsed at least one affect regulation reason 97.6% (41)

endorsed all five affect regulation reasons 40.5% (17)

Addictive Features

Feels relief after NSSI (92.9%, n=39)

Since you started to self-injure have you found that:

- NSSI occurs more often and/ or severity increased since started ---------- 97.6% (41)
- NSSI continues despite recognizing it as harmful 95.2% (40)
- Tension recurs without NSSI---------- 85.7% (36)
- Urges are upsetting, but not enough to stop NSSI 81.0% (34)
- NSSI causes problems socially ---------- 73.8% (31)
- Frequency and/or intensity has increased to achieve the same effect ---------- 73.8% (31)
- Time consuming ---------- 64.3% (27)

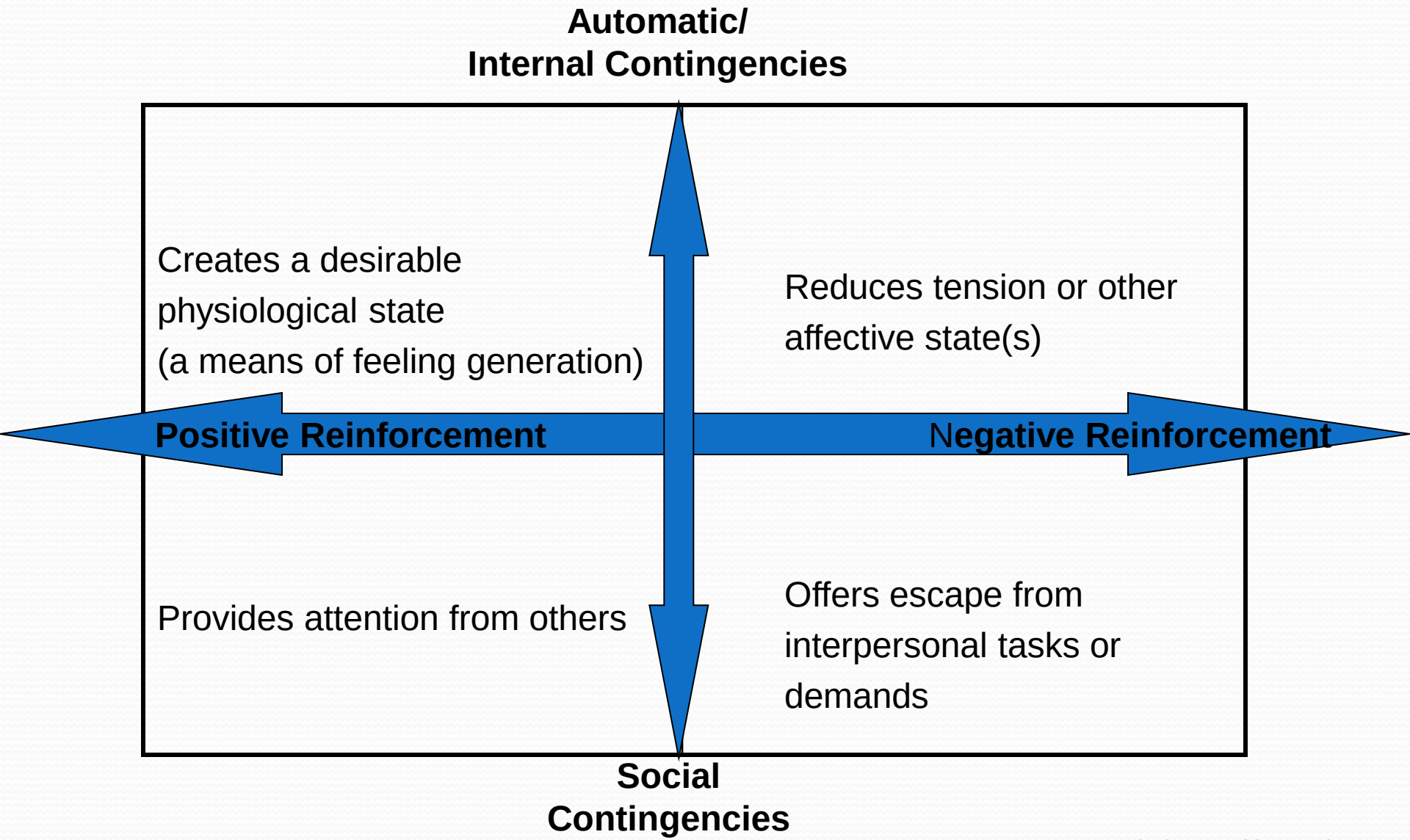
98% endorsed 3 or more items

81% endorsed 5 or more items

Severe NSSI: n=23

- Head banging and/or bone breaking + cutting/scratching
  - Significantly younger age of onset
  - Significantly more addictive features
  - Significantly more daily urges and acts of NSSI
- No difference in:
  - gender
  - levels of depression
  - hx of suicide attempts
  - STAXI scores
  - self reports of abuse (sexual or emotional)
  - alcohol/drug abuse

A Four Factor Functional Model of NSSI



Nock and Prinstein, 2004: A functional approach to the assessment of self mutilative behaviour. *Journal of Consulting and Clinical Psychology*

Psychological Characteristics and NSSI

(Klonsky and Muehlenkamp, 2007)

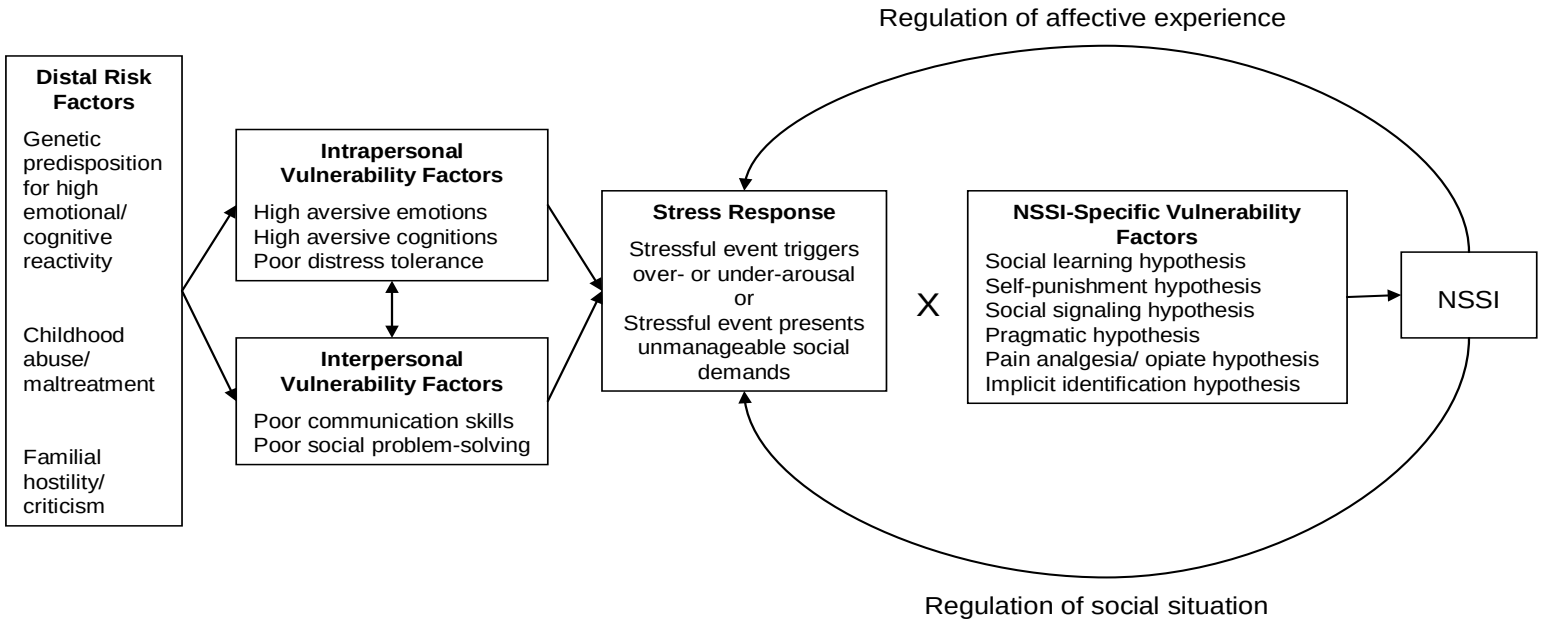
- Negative emotionality
  - More frequent and intense negative emotions
- Deficits in emotion skills
  - Difficulties with their experience, awareness and expression of emotions
- Self derogation
  - Self critical, self directed anger

Parental Expressed Emotion and Adolescent NSSI

(Wedig and Nock, 2007)

- High parental EE was associated with
  - Suicidal ideation, suicide plans, suicide attempts and NSSI
  - For NSSI, *parental criticism* was strongly associated with self harm behaviours while emotional overinvolvement was not
  - The relationship between EE and self harm behaviours was not explained by adolescent mental health problems
- Moderation model was supported
  - the relationship between *parental criticism* and self harm behaviours was especially strong in youth with a with a *self critical cognitive style*

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

Correlates and Predictors of Non-suicidal Self Harm in Youth

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Funding: CIHR

Centre for Youth & Society
University of Victoria

1 University of Victoria | British Columbia Canada

2 CHEO
CHILDREN'S HOSPITAL OF EASTERN ONTARIO

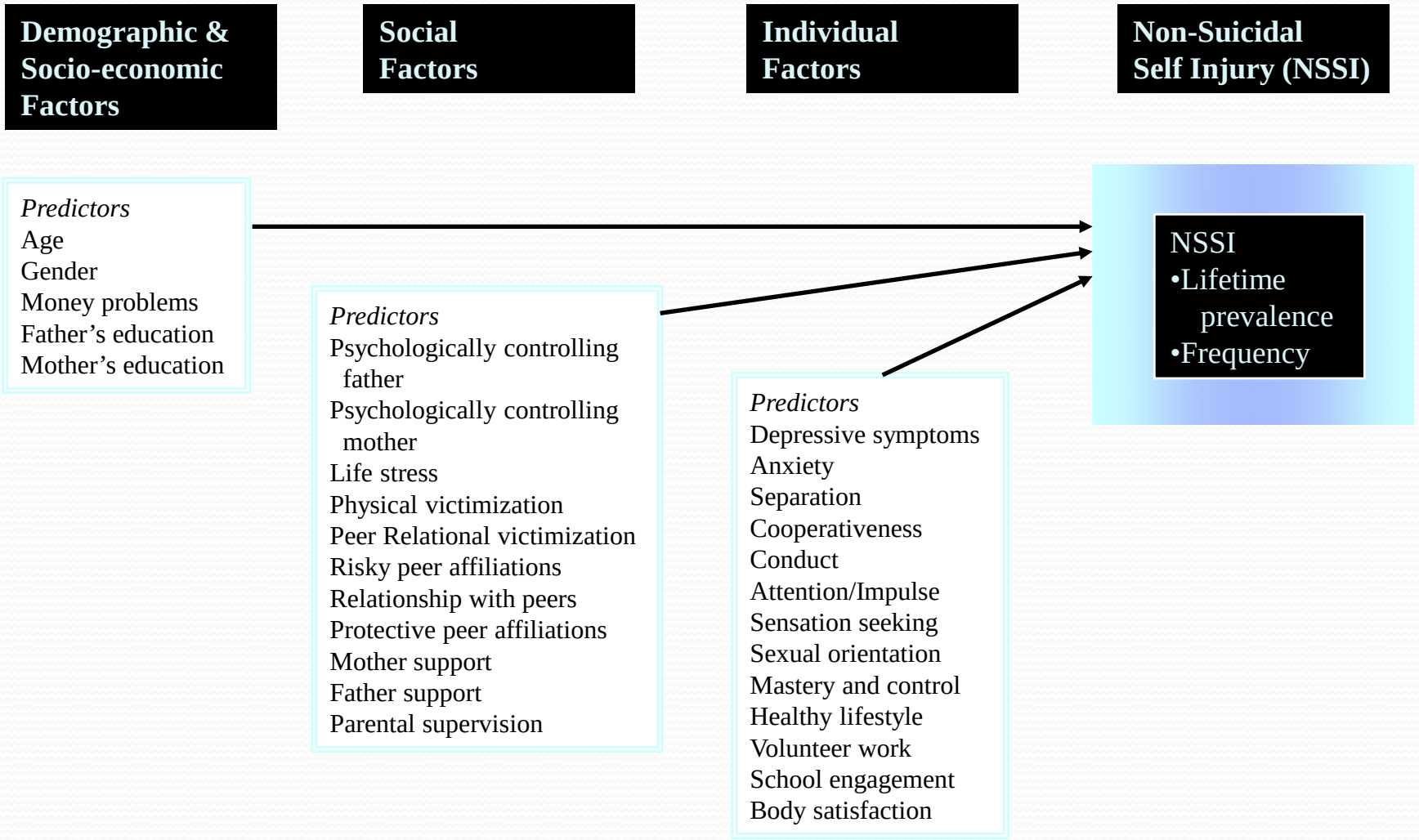
Method

- 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



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

Conclusions

- Engaging in non suicidal self harm is likely determined by a constellation of demographic, social and individual factors
- In this model, lifetime presence and frequency of NSSI was predicted by:
  - Depressive symptoms
- Lifetime presence of NSSI (but not frequency) was also predicted by:
  - female gender
  - questioning or non-heterosexual orientation
- In repetitive NSSI the contribution of negative parenting may be mediated by depressive symptoms and by peer victimization in the presence of lifetime NSSI
- Clinical Implications: Those with NSSI need a screening mental health assessment and psychosocial assessment re specific issues such as sexual identity, negative parenting and peer victimization

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, 2004 and 2007)

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]

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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)

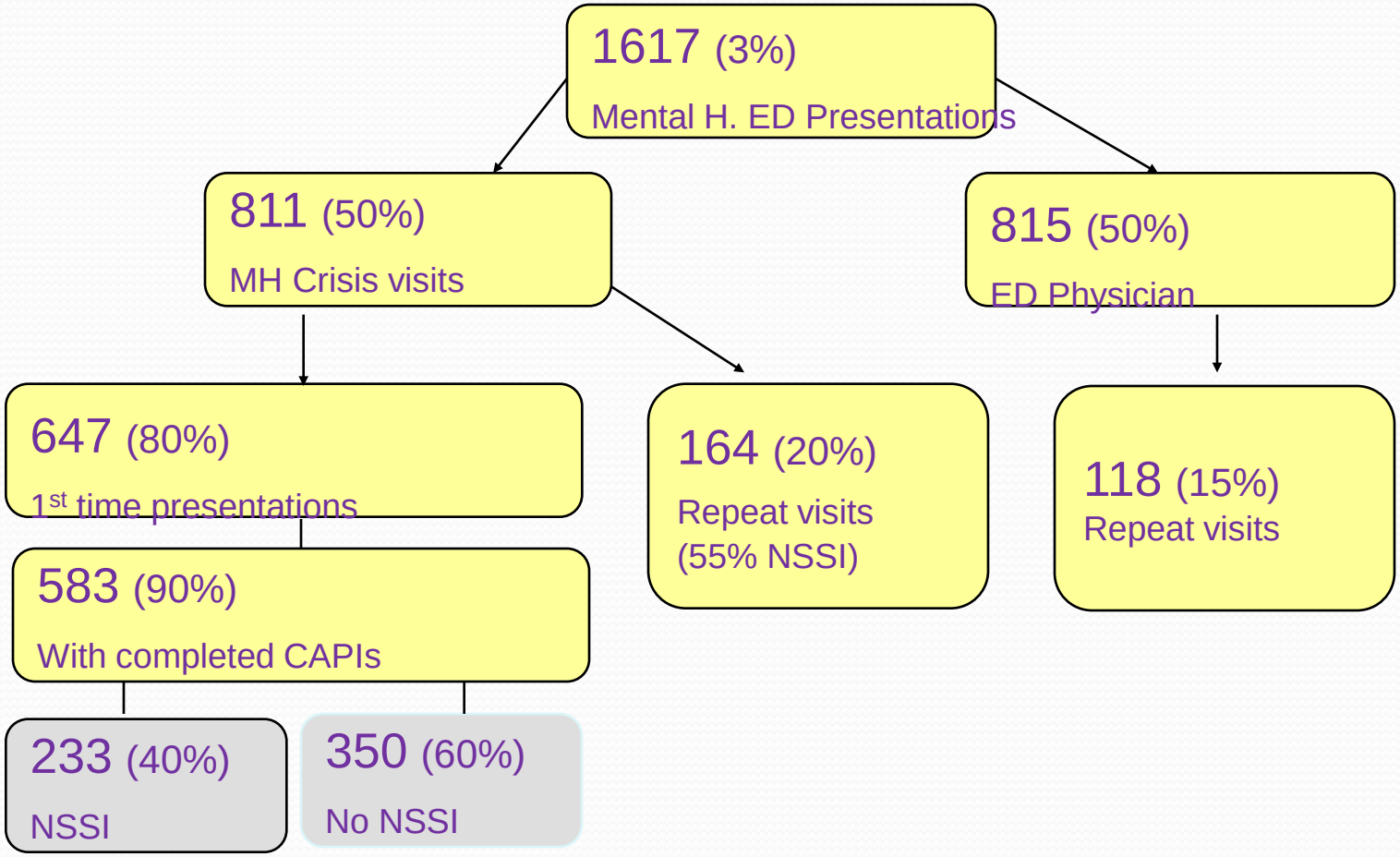
Risk Behaviour (suicidal ideation, self-mutilation (NSSI) aggression toward people, aggression toward objects)

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

Functioning (educational, family, peer, nutritional)

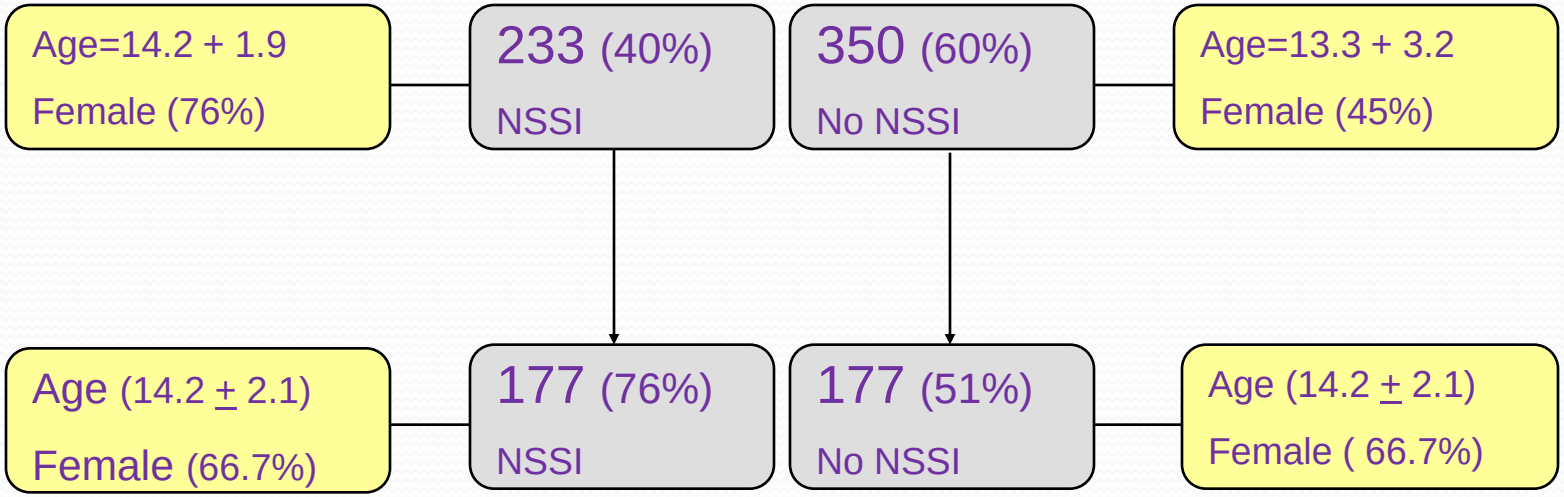
Systems Support (parental supervision and monitoring, safety, organization of services)

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 in NSSI group vs no NSSI:
  - -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%)

J. Youth Adolescence 2010, 39 259-269.

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 ·

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 monitoring
- Suicide events 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

Hidden Hurt

- Many youth do not seek professional help despite severe injuries and consequences of self injury
  - 1/5 reported injuring themselves more severely than expected or that they should have received medical help – yet very few actually sought medical help

- Many physicians are unaware of self injury in their adolescent patients
  - Only 3.2% indicated their physician knew

- Overall detection rates are low
  - 36% - no one knew about their self injury behaviour

Whitlock, J., Eckenrode, J., & Silverman, D. (2006). Self-injurious behaviors in a college population. *Pediatrics, 117*, 1939-1948.

- Parents, teachers, and others close to teens in the community often feel ill equipped to respond to detection of self injury

- Many professionals also feel overwhelmed and perplexed by self injury in youth

Screening for Self harm Behaviours in Primary Care

- Primary care health professionals have the opportunity to identify MH issues early
- Health screening measures that include items regarding mental health, particularly mood, substance use, behavioural issues, and self-harm are available

HEADS-ED

A framework for screening and getting the "big picture"

- **H**ome
- **E**ducation
- **A**ctivities and peers
- **D**ependence/addictive behaviours
- **S**uicidality

- **E**motions and behaviour
- **D**ischarge resources

Screening and Triage

- Screening:
  - Interview:
    - “Generally speaking how to you cope when you are feeling stressed or distressed?”
    - “Have you ever purposefully harmed yourself with intending to take your life?
  - Use of Self Report Questionnaires: eg Youth Stress and Coping Questionnaire
    - Includes general questions re coping with self harm embedded
    - Includes questions regarding history of NSSI if positive
    - Includes questions re suicidal behaviour
- Triage:
  - Type of referral and urgency depending on
    - suicide risk
    - frequency and intensity of self injury
    - associated difficulties, eg depression, family issues

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)

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

Ottawa Self Injury Inventory (OSI): Functions

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			sometimes a reason	always a reason
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
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
5. to get care or attention from other people	(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
8. to relieve nervousness/fearfulness	0	1	2	(3)	4

IF YOU CONTINUE WHY DO YOU CONTINUE?	never a reason			sometimes a reason	always a reason
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
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
5. to get care or attention from other people	(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
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

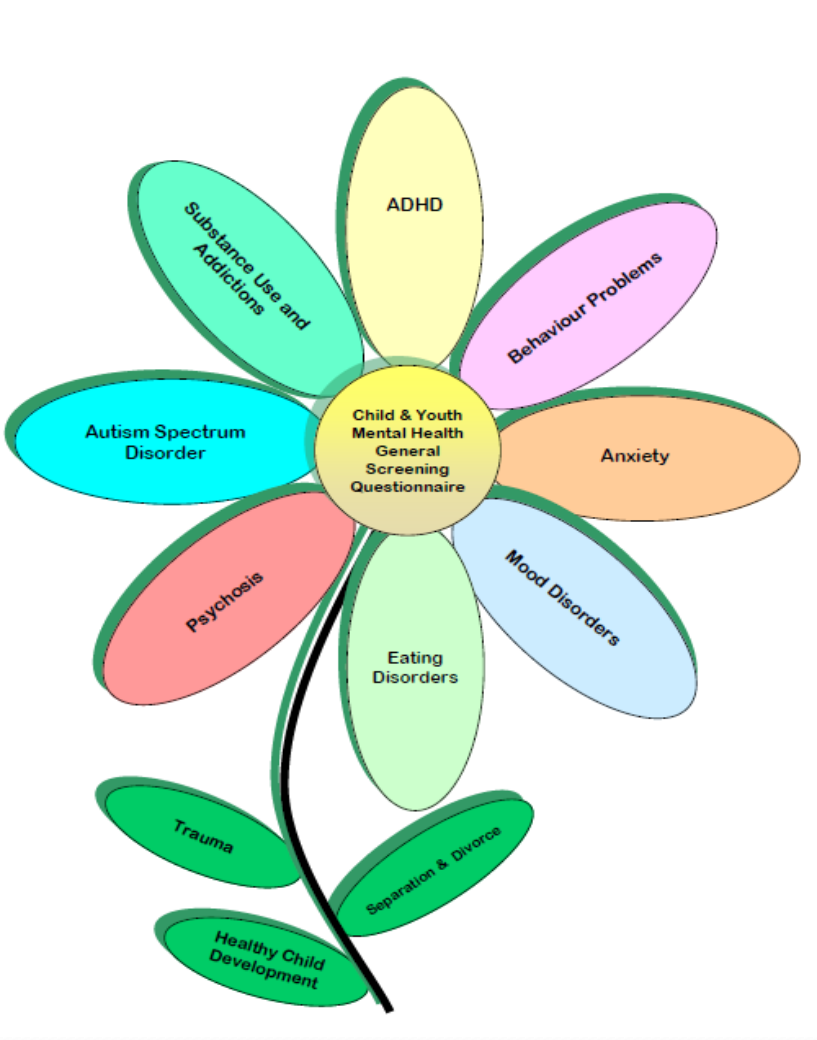
Martin et al, 2012

- 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 dont 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

The Role of the Primary Care Physician

- May be the “first responder”
  - Importance of a non-judgemental approach
  - “Respectful curiousity” when asking about the behaviour
- Risk assessment for suicide and other self harm behaviours
- Mental health screening
- Treat and or refer accordingly

Shared Care Initiative http://www.sharedcare.ca/toolkits



PHQ-9 Adolescent Version

- The Patient Health Questionnaire- 9 items
- Modified for adolescents
- Screening tool for depressive symptoms
- Mild/moderate/severe
- Suicidal ideation
- Hx of suicide attempts

http://www.hamiltonfht.ca/docs/public/phq-9-adolescent-pdf-form.pdf

Dealing with Depression Workbook for Adolescents:

http://www.shared-care.ca/files/Dealing_with_Depression_dwd_writable.pdf

Thought Record

Event	Automatic Thought	Mood	More Helpful Thought	Rate Moods Now

Emergency Physicians: Interventions

- Medical treatments
  - Sutures/steri-strips
  - Immunization status for tetanus
  - Management of minor overdoses
  - ? Other undetected self harm behaviours
- May be first contact for youth and families re a possible mental health problem
  - Triage and referral for mental health assessment
- Repeat patients to ER with NSSI
  - Non-judgemental approach
  - Ask re suicidal ideation/risk assessment and refer as necessary

Self Injury Outreach and Support

http://sioutreach.org

S. Lewis and N. Heath (U of Guelph, McGill U Canada)

Mentalization-Based Treatment for Self Harm in Adolescents: A Randomized Controlled Trial

Rossouw and Fonagy, 2012, JACACP

- Mentalization: ability to understand and predict thoughts and feelings in oneself and others
  - Deficits associated with failures in early attachment
- MBT-A:
  - Education on the link between mentalization and self harm
  - Development of a behavioural crisis plan for youth and family
  - Psychodynamic exploratory individual sessions
    - To understand the kinds of social experiences and resulting mental states that cause self harm

Results

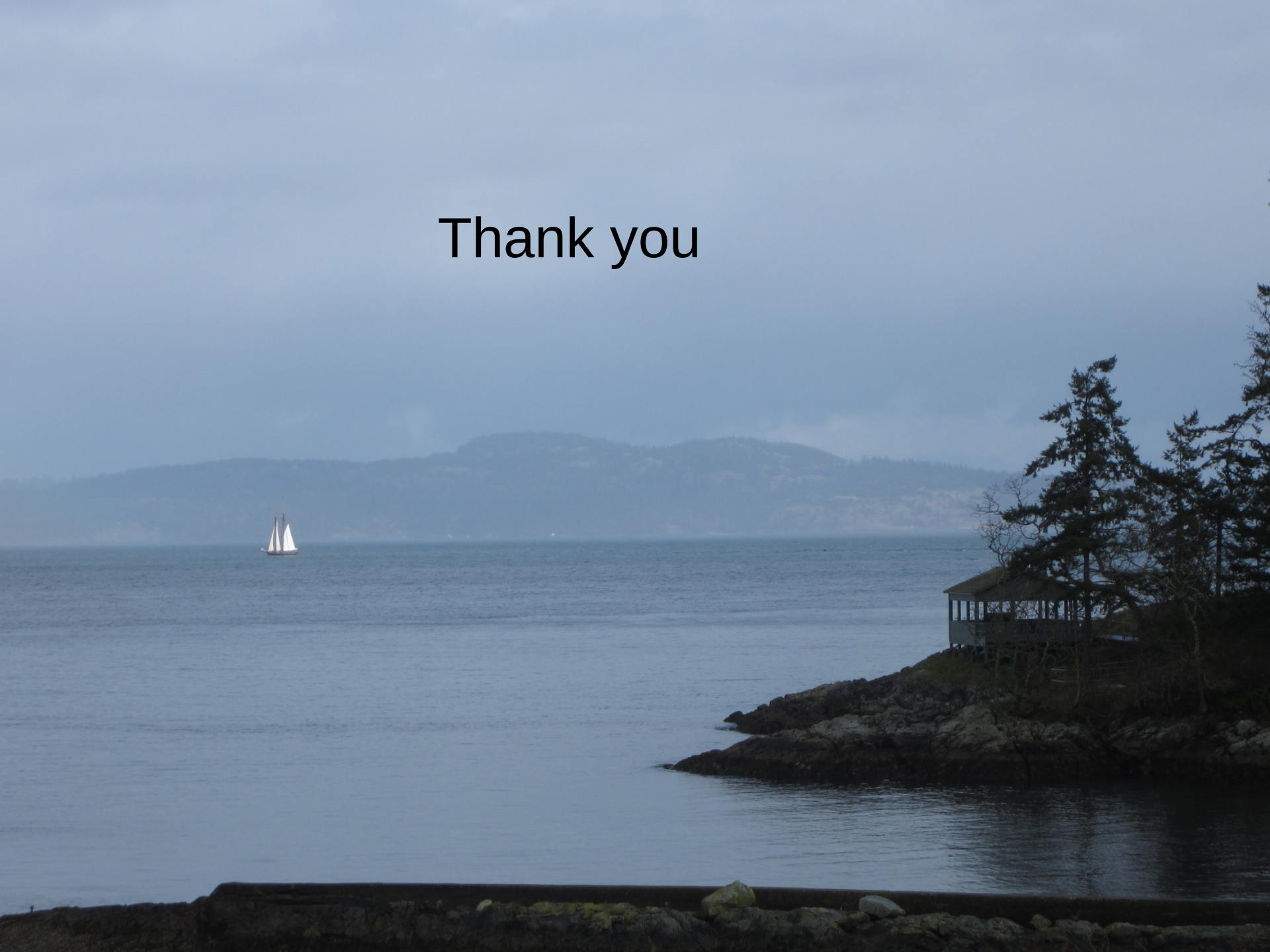
- MBT-A more effective than TAU (psychosocial support)
  - 33% in MBT-A group continued to meet BPD criterea at 12 months vs 58% in TAU
  - Effects of tx were mediated by and increased ability to mentalize and a decrease in attachment avoidance

Considerations: Editorial by D. Miklowitz, 2012

- Depression is a risk factor for self harm
  - How much did MBT-A operate through changing depressed mood and cognitions vs changing internal self-regulatory processes central to BPD
- Adolescents in the MBT-A group were twice as likely (66 vs 33%) to have family sessions than those in TAU
  - Family sessions have proven efficacy in outcomes re mood disorders in youth

In Summary

- The role of the "first responder" is important
  - Detection, preliminary assessment, engagement
- NSSI can be highly repetitive and "addictive" in nature and/or a maladaptive coping mechanism related to stress and difficulties with emotional regulation
  - Presentations and repeat presentations to ER are not uncommon
  - Suicide risk assessment is important
- Primary and ER physicians can be part of a collaborative care team in these youth who benefit from both validation and consistency in terms of approach
- NSSI may respond when underlying depression is treated
- Assessment and intervention regarding triggers and acute and chronic psychosocial stressors is also important
- Information online for professionals youth and families is available


Thank you