Effective prevention of suicidal behaviours in adolescents – from targeted treatments to fire arms restriction

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The natural history of self-harm from adolescence to young adulthood: a population-based cohort study

Proportion of participants reporting self-harm at each follow-up wave, with 95% CIs, showing available case estimates and sensitivity estimates assuming that those missing at each wave were at twice the risk of self-harm as those responding

Repetitive self-harming behaviour

- An acquired (learnt) pattern of regulating emotions, interpersonal relations and coping with stressful situations
- Very often starts in adolescence
- Frequently associated with personality disorder
- The effect of self-harm on negative emotion is often immediate and strong – but of short duration - and it is highly addictive
- Several similarities with substance abuse and eating disorders
Self-harm
Emotion Regulation Model

Trigger: Stressful event

Negative emotion

Hyper Arousal
Cognitive functions

Intense negative emotion

Self-harm

Inhibition of emotions

Emotion reactivity

Self-validation

increases

reduces
Early detection of self-harming behaviours in adolescents
Problem

- Many teenagers have strong feelings of shame about their self-harm and want to hide it.
- Others want to keep the self-harm to themselves – it helps them control strongly negative emotions – in the short term perspective.
- Hence, many teenagers may have an avoidant attitude towards helpers’ attempts to talk about self-harm.

AND

- Parents may tend to normalize pathology.
- Attitudes in gatekeepers and clinicians and administrative routines may represent barriers to detection and intervention for self-harm.
Screening for self-harm in Child and Adolescent Mental Health Care settings

Among 987 newly referred patients in the age group 12-18 years 241 were positive on the screen for self-harm

24.4% of the screened patients

Mehlum et al., JAACAP, 2014; 53(10):1082-91
Grøholt et al., Suicidologi 2014; 19: 3: 24-29
What are effective treatments self-harming adolescents?
RCT-supported treatments

- Integrated Cognitive Behaviour Therapy (I-CBT)
  Esposito-Smythers et al, 2011

- Mentalization Based Treatment (MBT-A)
  Rossouw & Fonagy, 2012

- Resourceful Adolescent Parent Program (RAP-P)
  Pineda & Dadds, 2013

- Dialectical Behaviour Therapy (DBT-A)

- Safe Alternatives For Teens and Youths (SAFETY)
  Asarnow et al, 2017
Dialectical behaviour therapy adapted for adolescents

DBT-A
DBT for suicidal and self-harming adolescents
Treatment modalities

- Individual therapy (1 hour weekly)
  - Including family sessions
- Multifamily Group Skills Training (2 hours weekly)
- Telephone coaching (24/7) between sessions with
  - individual therapist
  - skills training therapist(s)
- Therapists’ consultation team meetings (weekly)
- Ancillary treatments as needed
- Duration of treatment: 16-20 weeks (vs 1 year in standard DBT)

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Increases

Reduces
Changing behaviours

Trigger: Stressful event → Negative emotion

Self-invalidation → Emotion reactivity → Negative emotion

Hyper Arousal Cognitive functions → Intense negative emotion → Self-harm

Inhibition of emotions increases

Skills → Changing behaviours

L. Mehlum
WHEN ON FIRE:
When emotionally «on fire»
Overwhelming urges to kill one-self or self-harm

• Shut it down
  - Without self-harm, overdosing or substance misuse

• Make no important decisions
  - Particularly with respect to life/death decisions

• Make contact with other people
  - It often feels difficult, but keep trying
Teach emotion regulation skills, for example this:

• Bend forward and place your face in a bowl of ice cold water and hold your breath for 30 seconds
• This elicits the diving reflex followed by:
  – Bradycardia
  – Reduced blood pressure
  – Reduced arousal
• Research and clinical experience has shown that use of this skill is effective in reducing panic anxiety, anger and dissociation
• Can be used by everyone except people with known cardiac disease
«Through not observing what is in the mind of another, a man has seldom been seen to be unhappy; but those who do not observe the movements of their own minds must of necessity be unhappy».

*Meditations*, Marcus Aurelius, 176 BC
Teach patient how to observe and describe her own emotions, thoughts and behaviours

MINDFULNESS SKILLS
Efficacy of DBT-A
Evidence from randomized clinical trials

• 19 weeks of DBT adapted for adolescents (mean age 15.6 years, females 87%) with recent and repeated self-harm behaviour and BPD features was associated with significantly lower frequency of self-harm episodes, suicidal ideation and depressive symptoms at post-treatment.
  
  Mehlum et al, 2014

• 6 months of DBT for adolescents (mean age 14.9 years, females 95%) with history of suicide attempts and recent self-injury and BPD features was associated with reduced repetition of suicide attempts and NSSI at post-treatment (but not at 1 year post-randomization)

  Macaulay et al, 2018
Long term effectiveness of dialectical behavior therapy versus enhanced usual care for adolescents with self-harming and suicidal behavior

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Frequency of Self-harm Episodes in Adolescents Receiving Dialectical Behavior Therapy or Enhanced Usual Care from Randomization to a 3-year follow-up
Suicidal ideation and depressive symptoms in Adolescents Receiving Dialectical Behavior Therapy or Enhanced Usual Care from Randomization to a 3-year follow-up

Time intervals since randomization
Mediation model of the effect of DBT-A on long-term frequency of self-harm episodes through reduction in hopelessness during trial treatment period

Mehlum et al, 2019
Hopelessness and suicidal behaviour

- Suicidal behaviours can be understood as escape strategies; escape from intolerable emotional pain
- These behaviours are often enforced behaviours
- Typical of people who are feeling hopeless:
  - An inability to generate thoughts or beliefs that the pain will eventually become less severe or disappear
  - Lack of confidence in other people’s willingness and/or ability to help mitigate the pain
- Hopelessness can be defined as a
  - lack of ability to produce pathways to achieve desired goals and to motivate oneself to use those pathways’ (Rand & Cheavens, 2009).
  - Lack of ability to envision oneself successfully coping with problems and difficulties.
- Hopefulness
  - Can be envisioned as a cognitive skill
The Bell-Curve Shift in Populations

Shifting the whole population into a lower risk category benefits more individuals than shifting high risk individuals into a lower risk category.

Population approach: encourage everyone to change, shifting the entire distribution.

Risk reduction approach: Move high risk individuals into normal range.

Fire arms ownership
(% of all private households)

NORWAY

Finland
USA
Norway
Canada
Sweden
France
New Zealand
Germany
England
Japan
Firearms suicide prevention – What are the possibilities?

• Legislation
  - Bans on certain types of firearms
  - Acquisition restrictions
    - Deny purchase to certain risk groups
    - Perform background checks before purchase is allowed
    - Waiting periods for firearms acquisition

• Licensing of firearms owners
  - Establishing national firearms registries

• Safe storage of firearms
  - Firearms safety boxes
  - Locking devices; chamber locks
  - Removing vital part of gun

• Influencing public attitudes to the use and safe storage of firearms
NRA

Our rights are under attack like never before. Join today.

JOIN
Firearms suicide in males in Norway 1987-2017

Proportion (%) of all suicides

Kilde: SSB 2010

www.selvmord.no
Method specific suicide rates in Norwegian males 1969-2012

Puzo et al, BMC Public Health 2016