
Professor Ellen Townsend
Self-Harm Research Group

@selfharmnotts
Self-harm is very complex and changes over time: CaTS key transitions

Key transitions are modifiable: talking therapies can help (need more)

Involve those with lived experience meaningfully: how?
• Died by suicide

• Person who ...

Emma Nielsen – Mind your ‘C’s and ‘S’s: The Language of Self-harm and Suicide (and why it matters): IMH Blog
Self-harm is...

Any act of intentional self-poisoning or self-injury, regardless of suicidal intent (NICE, 2011)
50% CYP suicide ➔ previous SH ➔ prevention
Suicide – leading cause of death 5-19 years England (ONS)
The reach of self-harm

- 200k episodes/year
- x4 number who ran London Marathon 2017
- Many more hidden episodes
- Strongest predictor of death by suicide
- This means it is an important aspect of suicide prevention
Complexity = opportunity

Genetic and biological factors

Psychiatric disorder
Negative life events or social problems

Personality factors

Aggression impulsivity

Psychological distress and hopelessness
Perfectionism and low optimism

Exposure to suicide or self-harm

Pain alleviation
Suicidal ideation

Availability of method

Method likely to be lethal
Method unlikely to be lethal

Outcome

Suicide
Self-harm

Hawton et al. Lancet 2012, 379, 2373-2382
Complexity

• Card Sort Task for Self-Harm
• (CaTS)

Temporal relationships?

• Sequence analysis
• (Order matters)
"Of all the truths relating to phenomena, the most valuable to us are those which relate to the order of their succession. On a knowledge of these is founded every reasonable anticipation of future facts, and whatever power we possess of influencing those facts to our advantage."

(John Stuart Mill, 1851)
Sequence Analysis in capturing complexity and time

- Understand patterns of actions/events
- Events past
- Complex casual factors
- Dynamic interplay
1. Test novel task to examine thoughts, feelings, events and behaviours prior to/following SH
   • Card Sort Task for Self-Harm (CaTS)
2. Sequence analysis: What are the important sequences of factors leading to self-harm?
3. First ever vs most recent episode SH

Townsend et al. (2016). *Journal of Affective Disorders*, 206, 161-168
Study 1: CaTS in young people

- CaTS co-created with Advisory Group of YP: Harmless
- 117 cards - thoughts, feelings, events, behaviours
  - E.g. “I was not afraid of death”, “I felt trapped”, “I was depressed and sad”, “I was drunk”
  - Participants could create additional cards
  - Timeline: 6mo, 1mo, 1 week, 1 day, 1 hr before/after
- First time and most recent episodes
- VAS – mood at start and end
- Mood repair
- SH past 6 months, age 11-21 years
Card sort task for self-harm (CaTS)

Townsend et al. (2016). *Journal of Affective Disorders*, 206, 161-168
<table>
<thead>
<tr>
<th>First episode of self-harm</th>
<th>Most recent episode of self-harm</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt depressed and sad</td>
<td>I felt depressed and sad</td>
</tr>
<tr>
<td>I could not tell anyone how I was feeling</td>
<td>I could not tell anyone how I was feeling</td>
</tr>
<tr>
<td>I hated myself</td>
<td>I isolated myself from others</td>
</tr>
<tr>
<td>I isolated myself from others</td>
<td>I hated myself</td>
</tr>
<tr>
<td>I felt worthless</td>
<td>I felt like a burden on people</td>
</tr>
</tbody>
</table>
• Do we observe a sequence/pattern over time?
• How how often did card pairings occur?
• Which card pairings contribute most strongly to sequence?

I felt depressed and sad

??

I could not trust anyone
Study 1: First episode – state transition diagram

1. I did it on impulse without planning
   → SELF-HARM

2. I had access to the means to hurt myself

3. I could not think of anything else to do
   → SELF-HARM

4. Medium frequency items
   - I could not trust anyone
   - I could not tell anyone how I was feeling
   - I isolated myself from others
   - I was not able to sleep

5. Low frequency items
   - I felt better after self-harm

I could not think of anything else to do → I hated myself → I felt depressed and sad → I was angry → I felt very anxious → I felt I could not escape from feelings or situations → 6 months before → Medium frequency items → I could not trust anyone → I could not tell anyone how I was feeling → I isolated myself from others → I was not able to sleep → Self-harm → I felt better after self-harm
Most recent episode

1. Self-harm
2. I felt worthless
3. I felt depressed and sad
4. I felt I could not escape from feelings or situations
5. I felt very anxious

Medium frequency items:
- I felt like a burden on people
- I could not tell anyone how I was feeling
- I wanted to die
- I isolated myself from others

Low frequency items:
- 6 months before

I was not able to sleep
I was very agitated and restless
Study 2: Increase complexity?

• More complexity? What if looked-after? Impact on sequences?

• Wadman et al (2017) British Journal of Clinical Psychology
LOOKED-AFTER

I felt depressed and sad
I self-harmed
I had access to the means to hurt myself

Medium frequency item(s)
Low frequency item(s)
I felt better after self-harm

FIRST EVER

I could not trust anyone
I could not tell anyone how I was feeling

I self-harmed

I was angry
I felt worthless

Medium frequency item(s)
Low frequency item(s)

I was not able to sleep
I isolated myself from others

I felt depressed and sad
I hated myself
I could not think of anything else to do

MOST RECENT

I could not tell anyone how I was feeling
I isolated myself from others

I felt depressed and sad
I hated myself
I felt worthless

The mental pain was unbearable

I self-harmed

Medium frequency item(s)
Low frequency item(s)

I was not afraid of death
I did it on impulse without planning

I self-harmed

6 months before
Study 3: E-Cats (Thynne et al, *In prep*)

- Online recruitment
- >18 years
- More time stamps
- Use cards more than once
and click "Custom card" to create a card with that text.

You can also use the circular buttons above the columns to show where new cards should be placed.

<table>
<thead>
<tr>
<th>Thoughts ▼</th>
<th>Feelings ▼</th>
<th>Events ▼</th>
<th>Behaviours ▼</th>
<th>Support ▼</th>
<th>Afterwards ▼</th>
</tr>
</thead>
<tbody>
<tr>
<td>● More than 6 months before</td>
<td>● 6 months before</td>
<td>● 1 month before</td>
<td>● 1 week before</td>
<td>● 1 day before</td>
<td>● 1 hour before</td>
</tr>
</tbody>
</table>
Study 4: CaTS interview - impulsivity, emotion, cognitive factors

Two modified tasks:

**All about Me (first task)**
25 cards + blank cards – select cards that best capture how you would describe yourself

**My experience**
43 cards + blank cards
Follows the CaTS timeline approach
- shortened time frame

- Structured springboard for nuanced dialogue
- Support understanding – conscious awareness?
- Build rapport and reduce power differentials

Lockwood et al *(In prep)*
Self-harm changes/evolves: assessments implication.

Recent self-harm: fearlessness of death, access to means, wish to die, hopelessness, impulsivity

Underlying emotional distress, particularly depression and self-hatred important

Regular monitoring and assessment vital: restrict access to potentially fatal means

CaTS clinical utility as an assessment tool: start difficult conversations
"I especially loved the card sort task as I helped me to look at and understand my experience and communicate this across within the research. I was able to complete the task freely in my own time and in my own way"
Factors in key transitions = modifiable

✓ Means access
✓ Negative thoughts and emotions, and impulsivity → PS, CBT, DBT, MBT
✓ (Hawton et al. 2015: 2016 Cochrane Reviews)
DBT does not reduce number repeating SH (or frequency) ($K=2$)

DBT does improve depression, hopelessness, ideation ($K=1$)

MBT does reduce number repeating SH ($K=1$)

No other intervention significant reduction in number repeating SH

Interventions for those over 18

Psychosocial interventions for self-harm in adults

Psychological therapies (‘talking treatments’) may help people who self harm.

New Cochrane review; 55 studies, where a total of 17,699 participants were randomized to receive either a psychosocial intervention or the care they would normally have received.

Best of the Cochrane Library: 2016 in review: Cochrane Library. DOI: 10.1002/14651858.CD012189.
In this podcast, young people reacted to our finding using the Card Sort Task for Self-Harm (CaTS) that self-harm can feel better the first time they self-harm, but this effect disappeared over time. (See Townsend et al 2016.) Uncovering key patterns in self-harm in adolescents: Sequence analysis using the Card Sort Task for Self-Harm.


"Many young people felt better after the first time they self-harmed, but not over time."
Co-creation via Café Connect

Self-harm can be difficult to talk about – help us find new ways
Where next? Clinical development of CaTS

Card sort task for self-harm (CaTS)

https://sites.google.com/view/self-harm-research-group
Self-harm is very complex and changes over time: CaTS key transitions - we’ve got this!

Key transitions are modifiable: Talking therapies can help (need more) - <18

Involve those with lived experience meaningfully: embedded in research practices - Listen-up! Café Connect
Key references


All publications – many focus on children and adolescents here:

[https://sites.google.com/view/self-harm-research-group](https://sites.google.com/view/self-harm-research-group)