Evaluation of the pilot DBT STEPS-A programme in an Irish Adolescent Population

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An initiative of schools in Cork supported by CAMHS, NEPS, Health Promotion, and HSE. Funding for this project is provided by the National Office for Suicide Prevention (NOSP), Ireland.
Self-harm in young people in Ireland

* Secondary schools in Cork approached health services/agencies
  * increasing difficulties with emotion regulation of their students

* Qualitative evidence from CAMHS* parents and DBT therapists about the benefits of the skills (National DBT Project)

* 20% of young adults in Ireland reported significant personal problems which they felt needed professional help but did not seek help (My World Survey, 2013)

* “Connecting for Life, Ireland’s National Strategy to Reduce Suicide 2015 -2020” (Department of Health, 2015):
  * prioritising adolescents through inter-agency collaboration in the development and implementation of mental health promotion programmes

*Child and Adolescent Mental Health Service
DBT Skill Training for Emotional Problem Solving for Adolescents (DBT STEPS-A)

- Social-emotional learning curriculum based on DBT (Linehan, 1993)
- Developed by Mazza and colleagues (2016) for high school students
- **Teaching** of emotion regulation and coping skills to a universal student population in a supportive environment
  → Increasing adolescents’ emotional resilience at universal & preventative level

### Distress Tolerance
- ACCEPTS
- Pros & Cons
- IMPROVE
- Radical Acceptance
- Turning the Mind
- Self-soothe

### Emotion Regulation
- Observe/Identify Emotions
- Describe Emotions
- Opposite Action
- ABC PLEASE

### Interpersonal Effectiveness
- Ranking Priorities
- DEAR MAN
- FAST
- Evaluating Options

### Mindfulness
Wise Mind, Observe, Describe, Participate, Non-judgementally, One-mindfully, Effectively
Engagement

23rd Feb. '15
- Meeting NEPS*, CAMHS, and Health Promotion - scoping links with schools & create multi-agency framework

23rd March '15
- Information session with 15 schools
- Hand out application forms (due 17/04/2015)
- 25 people from 13 schools attended

15th May '15
- Meeting with schools participating in the DBT STEPS-A
- Aim: explore barriers & problem-solve
- Teachers from 10 schools attend

26th - 28th Aug. '15
- DBT STEPS-A training for teachers and professionals from the different agencies
- 13 teachers from 8 schools

Ongoing email and phone contact with teachers to support their engagement with the programme and problem solve
Support Network for Teachers implementing STEPS-A

*Funding was provided by the National Office for Suicide Prevention (NOSP), Ireland*
### Method

**Measures of Change**
- DERS (Difficulties with Emotion Regulation Scale)
- DBT-WCCL (DBT Ways of Coping Checklist)

**Outcome Measure**
- BASC-2 (Behaviour Assessment System for Children):
  - 4 composite clinical scales
  - 12 clinical subscales
  - 1 adaptive scale with 4 subscales

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**Start of STEPS-A** → **End of 1st teaching block** → **End of 2nd teaching block** → **End of STEPS-A (~end of academic year)** → **Follow up (14 weeks after completion of STEPS-A)**
Participants

**STEPS-A/ IV:**
- 8 Schools
  - 5 Mixed Schools: 321 Participants
  - 1 Girls’ School: 26 Participants
  - 2 Boys’ Schools*: 38 Participants

**Control Group**
- 2 Schools
  - 1 Girls’ School: 47 Participants

*1 School implemented STEPS-A in 1/3 of their TY year

**STEPS-A Group**
- Males: 193
- Females: 192
- Total: 385

**Control Group**
- Males: 47
- Females: 47
- Total: 94
Preliminary Results: DBT WCCL

Skill Use (n = 250)

Pre STEPS-A (DBT) | Post STEPS-A (DBT)
---|---
Skill Use Score | Skill Use Score
44.6 | 62.7
62.3 | 63.1
62.3 | 69.3

Analysis Sign.
Total | p = 0.000*
Males | p = 0.023*
Females | p = 0.000*
### BASC-2 Categories of Scores

<table>
<thead>
<tr>
<th>Categories</th>
<th>At Risk</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinically Significant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low/ High</td>
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</table>
Preliminary Results: BASC-2

Percentage of students scoring low on adaptive scales (n = 250)

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Sign.</th>
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<tbody>
<tr>
<td>Total</td>
<td>p = .005*</td>
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<tr>
<td>Males</td>
<td>p = .481</td>
</tr>
<tr>
<td>Females</td>
<td>p = .003*</td>
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</table>

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Sign.</th>
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<tbody>
<tr>
<td>Total</td>
<td>p = .374</td>
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<tr>
<td>Males</td>
<td>p = .701</td>
</tr>
<tr>
<td>Females</td>
<td>p = .500</td>
</tr>
</tbody>
</table>
Preliminary Results: BASC-2

Percentage of students scoring high on clinical scales (n = 250)

**Anxiety**
- Total: 42.80% (p = .011*)
- Males: 34.40% (p = .035*)
- Females: 32.00% (p = .154)

**Depression**
- Total: 21.90% (p = .360)
- Males: 19.00% (p = .678)
- Females: 28.00% (p = .503)

**Atypicality**
- Total: 32.00% (p = .245)
- Males: 28.00% (p = .711)
- Females: 26.60% (p = .029*)

**Emotional Symptom Index**
- Total: 37.80% (p = .000*)
- Males: 26.00% (p = .263)
- Females: 26.60% (p = .000*)

Composite of: Social Stress, Anxiety, Depression, Sense of Inadequacy, Somatisation, Self-Esteem, Self-Reliance.
Risk Assessment

* Developed based on BASC-2 profile of students at baseline
* 2 potential cases:

<table>
<thead>
<tr>
<th>Items</th>
<th>Statement</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>I just don’t care anymore</td>
<td>Truth</td>
</tr>
<tr>
<td>81</td>
<td>I feel like my life is getting worse and worse</td>
<td>Always/ Often</td>
</tr>
<tr>
<td>93</td>
<td>I feel depressed</td>
<td>Always/ Often</td>
</tr>
<tr>
<td>111</td>
<td>I feel sad</td>
<td>Always/ Often</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Items</th>
<th>Statement</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>122</td>
<td>I hear voices in my head that no one else can hear</td>
<td>Always/ Often</td>
</tr>
<tr>
<td>149</td>
<td>Someone else controls my thoughts</td>
<td>Always/ Often</td>
</tr>
</tbody>
</table>
Follow-up based on Risk Assessment: Comparison of IV and CG group

Percentage of identified students per groups across timelines

- Pre STEPS-A: 7.10%
- Post STEPS-A: 7%
- Pre STEPS-A: 5.40%
- Post STEPS-A: 6.50%
Conclusion & Clinical Implications

* Where we are at now:
  * Beginning the in-depth exploration of data
  * Follow up data collection

* Clinical Implications:
  * Data in our study makes sense of data of National Registry
    * Identification of students potentially experiencing high distress and not communicating it
    * promote resilience on adolescents through inter-agency collaboration
Consideration for future Implementation

* Delivery of recommended 30 classes challenging in TY
* Reconsideration of modules: Content and order
  * “I believe in the mission but my teaching experience tells me this vehicle is not as good as it could be” (teacher at network meeting).
* Support and inter-agency collaboration as a facilitator for successful implementation
Acknowledgements:

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  - The National DBT Project Team

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