How effective is a computerised self-help programme (SPARX) for Māori adolescents seeking help for depression?

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Whakatauki

A o tupuna I whakamarama te huarahi mo tatou.

The experience and guidance of our elders will give us a brightness of hope and direction for future developments.
Why begin the Hikoi?

“New Zealand cannot be a healthy nation with significant disparities between Māori and non-Māori citizens. Focus on Māori health will always be important in a society which values equity,”
Assoc Prof Papaarangi Reid 2008

- Computerised self-help
- Cognitive behavioural therapy strategies
- Animated and interactive 3D fantasy game + educational component
- Funded by the Ministry of Health
An investigation into the design, applicability and effectiveness of a computerised CBT programme for Māori adolescents experiencing moderate depression

Matt Shepherd’s DClinPsy (supervised by Associate Professors Sally Merry and Ian Lambie) consisted of:

• Taitamariki and whānau Focus Groups re: development of SPARX
• An open trial of SPARX
• Post-intervention interviews
• A secondary analysis of the Māori data from the RCT
Does CBT work for Māori?

- There is grey literature
- Plenty of clinical opinion
- Cargo - Cultural adaption CBT
- Bennets PhD - Cultural adaption CBT
- What about CCBT?

Māori adaption of CBT

Systemic Factors: Culture, Family, Relationships

Taha Whānau & Taha Wairua

Tania Cargo
2008
Evaluation of SPARX

• Large multisite RCT (n=187) comparing SPARX with usual care in 12 to 19 year olds with mild to moderate depressive symptoms

• SPARX was not inferior to usual care → SPARX is a potential solution to help address the unmet needs of young people with depression

• RCT results published in the British Medical Journal
Interviewer rated depression - CDRS-R
Intention to treat analysis

Analysis of Māori Participants from SPARX RCT

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<th>SPARX</th>
<th>Treatment as usual</th>
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<td>19</td>
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<td>17</td>
<td>1</td>
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<table>
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<th>SPARX</th>
<th>Treatment as usual</th>
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<td>12</td>
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<tr>
<td>%</td>
<td>29.2%</td>
<td>23.8%</td>
<td>26.7%</td>
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<tr>
<td>Total</td>
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</table>
**Interviewer rated depression - CDRS-R**

Maori participants

**Self rated depression scale - RAD-2**

Maori participants
RESULTS

• All participants improved: mean reduction on CDRS-R of -5.13 for SPARX and -6.87 for TAU, (maintained at three month follow-up)

• The mean scores dropped to within normal range at the 5 month follow-up time point

• Taitamariki group shifted one category, from a ‘possible depressive disorder is likely to be confirmed’ to a ‘depressive disorder being unlikely to be confirmed’

• Led to an improvement on all secondary outcome measures with SPARX achieving results comparable to TAU on all measures

Satisfaction Questionnaires

• Overall, 18 taitamariki who completed SPARX filled in the month two post treatment satisfaction questionnaires

• 72% found SPARX was very useful or useful

• 13 reported SPARX was very useful or useful in teaching them about depression
Awards and publicity

• World Summit Award 2011
  • Under the auspices of United Nations
  • Awarded for the best e-content in the category of health and education

• Featured on Radio NZ, BBC World Service and other international media outlets
SPARX – new and future research

• HRC grant to develop an e-monitoring tool (RPNZHD 2012)
• FRDF 2012 for online screening tool
• SPARX in Christchurch inpatient unit feasibility study (with Dr Moor)
• SPARX in Auckland inpatient unit (with Dr Stanton)
• SPARX with ‘at-risk youth’
• Dr Michael Spencer from Cambridge University (SPARX for children with ASD and depression)
• SPARX with Māori whānau
• International interest from several countries

The last word goes to a taitamariki

Male PI: As a young person growing up both my parents have been there for me. Actually one of my mates has topped himself from being depressed and one of the reasons why he killed himself was his family was too hard to get to and there was nothing to help him on his journey. I think some young people find it hard to talk to their parents. Some of their parents are not even looking after them like housing, maybe that’s something for the parents to look at as well. Yes, because being a young person we see things and if we had a role model, we would go straight to them. But some young people don’t really have role models in terms of what they want to do.
For me I have a love of film and kapa haka. I go to my brother for kapa haka, I go to (name) for example for filming if I need help in those areas that I am depressed in. But not many people have people to look up to, to help them on the way and maybe the video game (SPARX) would be something to help them along. And maybe at the end of the game you could guide them to actually go and talk to their parents or wherever they are living and talk to them. Get them to sit down and help them do what they want. Yes, that’s how he killed himself, the parents weren’t there, his brothers and sisters weren’t there.