

Poster

# Putting Young People at the Forefront of Their Mental Health Care Through Technology for Holistic Assessment and Routine Outcome Tracking

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Debra Rickwood\*, PhD; Sally Bradford\*, BA(Hons), PhD

headspace National Youth Mental Health Foundation Australia, Melbourne, Australia

\* all authors contributed equally

**Corresponding Author:**

Debra Rickwood, PhD

headspace National Youth Mental Health Foundation Australia

485 La Trobe St

Melbourne, 3000

Australia

Phone: 61 407661157

Fax: 61 62012701

Email: [debra.rickwood@canberra.edu.au](mailto:debra.rickwood@canberra.edu.au)

## Abstract

**Background:** Young people have the highest need for mental health support yet are least likely to seek it from professional services. Enabling access and engagement in mental health care is essential to intervening early to provide appropriate and effective care to prevent escalation of young people's mental health problems. In response, Australia initiated headspace: the National Youth Mental Health Foundation, which provides friend-to-friend (f2f) and online services to young people aged 12-25 with emerging mental health problems. Innovations in technology are being developed to better engage and put young people at the forefront of their mental health care.

**Objective:** The aim was to investigate how technology could be used to facilitate holistic psychosocial assessments for young people entering mental health services and routinely track meaningful outcomes across an episode of care. Objectives were to determine whether this use of technology would be engaging and acceptable to young people and how it would affect appropriateness and effectiveness of the care received.

**Methods:** An electronic holistic psychosocial assessment tool (EhHAT) and a brief routine mental health outcome measure (MyLifeTracker) were developed in collaboration with young people and their service providers. The EhHAT was piloted using a quasi-experimental 2-phase treatment-as-usual/intervention design with 339 youth and 13 clinicians. Engagement and rates of disclosure and risk across the psychosocial domains were compared in a mixed methods approach. MyLifeTracker was implemented with all clients, and quantitative data were available from 15,222 young people and used to compare MyLifeTracker with standardized mental health outcome measures. Qualitative data were collected from a small subsample to examine their experience of this routine monitoring approach.

**Results:** The EhHAT was shown to be highly engaging and acceptable to young people and resulted in disclosure of psychosocial risks that were 2.8 through 10.4 times higher compared with the non-intervention group. MyLifeTracker was shown to have concurrent validity against well-validated measures of psychological distress, functioning, and life satisfaction. It was highly sensitive to change with excellent stability. Young people valued the opportunity to report and track their progress. For both applications, the use of technology improved the experience for young people, making them feel more in control, and providing better information for clinicians.

**Conclusions:** The results show that technology is effective at engaging young people in their own mental health care. They are comfortable providing personal information via tablet applications and are more likely to disclose in this format. This yields better information for clinicians to provide more appropriate and tailored care. Young people appreciate the opportunity to routinely track their outcomes via technology and find this a helpful way to have conversations with their clinicians around the changes that are meaningful to them, leading to more appropriate and effective care. These holistic assessment and outcome

tracking tools are essential ways forward harnessing technology to put young people at the forefront of their own mental health care.

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**KEYWORDS**

youth; mental health; assessment; outcomes

This poster was presented at the Connected Health Symposium 2016, October 20-21, Boston, MA, United States. The poster is displayed as an image in [Figure 1](#) and as a PDF in [Multimedia Appendix 1](#).

**Figure 1.** Poster.

**Putting young people at the forefront of their mental health care through technology for holistic assessment and routine outcome tracking**  
 Debra Rickwood<sup>1,2</sup>, Sally Bradford<sup>3</sup>

**Background**  
 Young people have the highest need for mental health support yet are least likely to seek it from professional services. Enabling access and engagement in mental health care is essential to intervening early to provide appropriate and effective care to prevent escalation of young people's mental health problems. **headspace**: Australia's National Youth Mental Health Foundation provides 24/7 and online services to young people aged 12-25 with emerging mental health problems. Innovations in technology are critical to better engaging young people and putting them at the forefront of their own mental health care. Two key areas where technology can assist are: 1. Holistic assessment that considers all a young person's psycho-social risk and protective factors. 2. Routine outcome monitoring to track progress.

**Objectives**  
 To investigate how technology could be used to facilitate holistic psychosocial assessments for young people entering mental health services, and routinely track meaningful outcomes across an episode of care. Specifically to: • determine whether use of technology would be engaging and acceptable to young people; and • how it would affect appropriateness and effectiveness of the care received.

**Results – Psychosocial assessment via EhHAT**  
 • Highly engaging and acceptable to young people. • Disclosure of psychosocial risks that were 2.8 through 10.4 times higher compared with the non-intervention group. • Did not affect therapeutic alliance. • Young people felt there was more time in session to talk about what was important to them.

**Mean (SD) reported levels of self-disclosure for each domain**

Domain	Control	Intervention	p	d
Physical health	2.96 (1.54)	2.91 (1.47)	.777	-.03
Home life	3.41 (2.36)	3.51 (2.26)	.461	-.06
School	3.35 (1.44)	3.47 (1.49)	.461	-.08
Bulled	2.58 (1.78)	2.98 (1.70)	.008	-.22
AbD	3.34 (1.91)	3.47 (1.77)	.240*	-.23
Relationships	3.49 (1.16)	3.41 (1.30)	.801	-.06
Sexual orientation	2.25 (1.87)	2.77 (1.77)	.015*	-.28
Self harm	2.86 (1.86)	3.33 (1.58)	.019*	-.27
Mood	4.00 (1.16)	4.72 (1.2)	.008	-.11
Worry	3.11 (1.20)	3.61 (1.27)	.006	-.08
Total self-disclosure	30.94 (10.68)	33.18 (11.51)	.082	-.20

**Results – Outcome monitoring via MyLifeTracker**  
 • Concurrent validity established against well-validated measures of psychological distress, functioning, and life satisfaction. • Young people valued the opportunity to report and track their progress. • Highly sensitive to change with excellent reliability.

**Mean MLT scores at first and last occasion of service**

Measures	12-14 Years			15-17 Years			18-21 Years			22-25 Years		
	M1 (SD)	M2 (SD)	d	M1 (SD)	M2 (SD)	d	M1 (SD)	M2 (SD)	d	M1 (SD)	M2 (SD)	d
1. General wellbeing	56.10 (26.07)	62.82 (24.85)	.25	43.77 (25.58)	52.10 (22.68)	.36	36.83 (21.08)	44.61 (21.41)	.36	37.62 (22.88)	46.71 (23.81)	.39
2. Day-to-day activities	57.87 (26.69)	62.12 (25.48)	.17	48.18 (23.46)	52.34 (23.26)	.18	35.43 (22.38)	43.01 (22.14)	.25	40.27 (23.36)	45.04 (23.05)	.27
3. Relationships with friends	45.41 (27.68)	70.02 (28.70)	.17	59.91 (28.86)	62.13 (24.58)	.09	53.58 (28.70)	54.87 (24.82)	.07	49.96 (28.08)	54.99 (24.17)	.20
4. Relationships with family	54.25 (26.58)	67.37 (28.01)	.12	58.25 (25.58)	60.00 (24.88)	.10	54.43 (26.83)	56.97 (24.88)	.10	55.54 (27.78)	58.41 (26.71)	.12
5. Coping	56.28 (21.48)	61.53 (21.85)	.24	45.24 (22.57)	51.78 (22.38)	.29	38.74 (21.06)	45.76 (21.87)	.32	40.50 (23.21)	48.86 (22.86)	.35
MyLifeTracker Total	59.95 (21.54)	64.06 (22.16)	.19	50.78 (18.86)	54.89 (18.43)	.22	43.98 (18.11)	48.46 (18.93)	.24	44.15 (19.81)	50.02 (20.46)	.29

**Summary and Conclusions**  
 Technology is acceptable and effective at engaging young people in their own mental health care through initial assessment and ongoing outcome monitoring. For both applications, the use of technology improved the experience for young people, making them feel more in control, and enabled clinicians to provide more appropriate and tailored care. Young people appreciate the opportunity to quickly and simply routinely track their progress via technology and find this a helpful way to have conversations with their clinicians around the changes that are meaningful to them. These tools are essential ways forward harnessing technology to put young people at the forefront of their own mental health care. Integrating such technology into routine practice and providing training and support to ensure uptake are implementation needs.

**Further information:** [drickwood@headspace.org.au](mailto:drickwood@headspace.org.au)  
 1 Faculty of Health, University of Canberra  
 2 headspace National Youth Mental Health Foundation National Office  
 3 Lifeline Australia

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**Multimedia Appendix 1**

Poster.

[\[PDF File \(Adobe PDF File\), 130KB-Multimedia Appendix 1\]](#)

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