



March 2023

LifeBuoy

Funder: Alex Thorpe, Australian Rotary Health, CRESPI, Goodman Foundation, Mantana Foundation for Young People, NHMRC, Perpetual, S&C Family Roth Foundation

CRESPI stream: Online Detection and Delivery, Schools

Research aims

LifeBuoy is a smartphone app designed to help young people to manage suicidal thoughts. This program of research investigates whether and to what extent LifeBuoy can help young people manage distress and suicidal ideation.

Overview

Suicide remains the leading cause of death among young Australians aged 15–24¹, but young people often struggle to access in-person help. Digital interventions offer an important alternative to traditional models of care, giving young people an additional pathway to support at a formative time in their lives.

LifeBuoy is a brief, self-guided smartphone app based on the principles of dialectical behaviour therapy. It contains a series of interactive learning activities designed to help users improve their emotion regulation and resilience to distress.

Lived experience input

LifeBuoy was co-designed by young people with lived experience of suicide (that is, they had experienced suicidal thoughts, attempted suicide, supported someone experiencing suicidal crisis, and/or had been bereaved by suicide).

After the first randomised controlled trial of the app in 2020 (described on page 2), the research team sought feedback on the LifeBuoy user experience from 16 trial participants. Three of the 16 were then invited to become part of a Youth Lived Experience Advisory Panel. Here, they played a key role in further refining the LifeBuoy app and developing the digital engagement strategy that was the focus of a second randomised controlled trial in 2022.

Project timeline

- 1 App development (2018)
- 2 Randomised controlled trial (2020)
- 3 Randomised controlled trial (2022)
- 4 Public release (2024 onwards)



¹Deaths by suicide among young people, Australian Institute of Health and Welfare, retrieved March 2023.



Research activity

Phase 1: App development (2018)

LifeBuoy was developed over a two-year period and co-designed by young people with lived experience of suicide (described previously). Eleven young people participated in a series of focus groups and 75 completed a survey to help shape the name, content and features of the original LifeBuoy app.

Phase 2: Randomised controlled trial (2020)

In 2020, the LifeBuoy research team launched a randomised controlled trial among 455 users aged 18–25 who had experienced suicidal ideation in the previous year. The primary aim of the trial was to measure whether the app was effective in reducing the severity of suicidal ideation symptoms. The secondary aim was to measure LifeBuoy’s impact on changes in depression, generalised anxiety, distress and wellbeing.

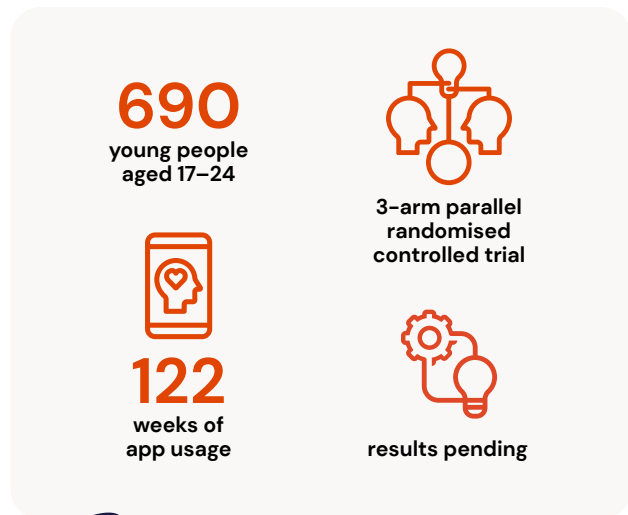
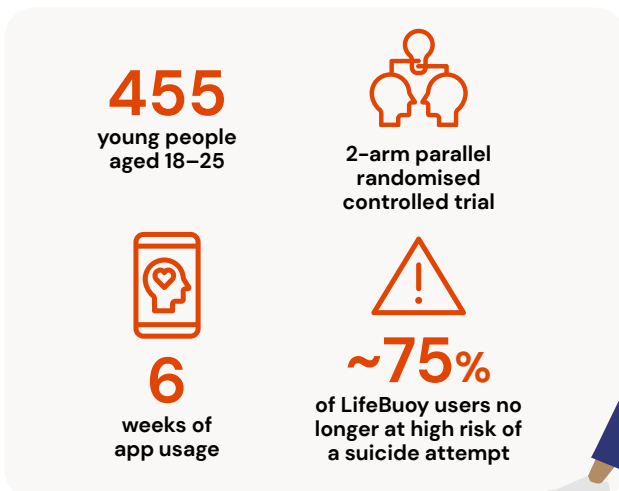
Participants used LifeBuoy over a six-week period, while a control group used a general health and lifestyle app that delivered non-therapeutic advice. Researchers measured user outcomes at baseline, six weeks post-intervention and three months post-intervention via a series of online questionnaires. Trial results showed that the app was effective in reducing the severity of suicidal thoughts, with the effect increasing over time. At the post-intervention stage, approximately 75% of LifeBuoy users achieved suicidal ideation scores below the high-risk threshold for a suicide attempt compared to 50% in the control group.

Phase 3: Randomised controlled trial (2022)

After a series of refinements to the LifeBuoy app, the research team conducted a second randomised controlled trial that was focused on user engagement. This trial also investigated whether helping young people build resilience in the face of distress could prevent self-harm and suicide.

The research team recruited 690 participants aged 17–24 who had experienced suicidal ideation in the past two weeks. The trial was split into three arms: one group received the LifeBuoy app, a second received the LifeBuoy app plus the engagement strategy (consisting of an Instagram post and blog), and a control group received a non-therapeutic placebo app. Researchers measured user outcomes at baseline and then at 30, 60 and 120 days post-intervention. Participants in the second group also completed a short survey at four different timepoints to assess the impact of the engagement strategy.

Data analysis is currently underway, with results expected in 2023.





Phase 4: Public release (2024)

The final stage of this project will be to release LifeBuoy to the public. Researchers will draw on the findings from the second randomised controlled trial to further iterate the LifeBuoy app before making it available via the app store for Apple and Android phones. Currently, the team is seeking funding to develop a suite of implementation resources that will support LifeBuoy's effective translation in a range of community, health and education contexts.

Impact

LifeBuoy has the potential to provide free, accessible mental health support for young people. In the near future, it will form part of a suite of Black Dog Institute-developed digital tools aimed at reducing suicide risk and fostering wellbeing among children, adolescents and young adults.

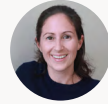
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The Centre of Research Excellence in Suicide Prevention (CRESP) is a collaborative program led by Black Dog Institute that aims to reduce the suicide rate in Australia.

March 2023

Research team

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External collaborators



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Publication list

Torok, M., Han, J., McGillivray, L., Wong, Q., Werner-Seidler, A., & O'Dea, B. Calear, A., Christensen, H. (2022). The effect of a therapeutic smartphone application on suicidal ideation in young adults: Findings from a randomized controlled trial in Australia. *PLOS Medicine*, 19(5). doi.org/10.1371/journal.pmed.1003978

McGillivray, L., Gan, D. Z., Wong, Q., Han, J., Hetrick, S., Christensen, H., & Torok, M. (2022). Three-arm randomised controlled trial of an m-health app and digital engagement strategy for improving treatment adherence and reducing suicidal ideation in young people: Study protocol. *BMJ open*, 12(5), e058584. [doi: 10.1136/bmjopen-2021-058584](https://doi.org/10.1136/bmjopen-2021-058584)