

# Feasibility and efficacy of the S-Check App to change help seeking behaviour of people who use methamphetamine

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# Acknowledgement of Country

I acknowledge that the research I am presenting today was developed on Gadigal and Bidjigal lands and conducted on First Nations lands across Australia.

I pay respect to elders, past and present, of all Australia's First Nations peoples, and Aboriginal and Torres Strait Islander people here today.

I recognise the strength and resilience of those people, who maintain a continuing connection to the lands and waters in this region – a right and responsibility that was never ceded.

# Disclosures

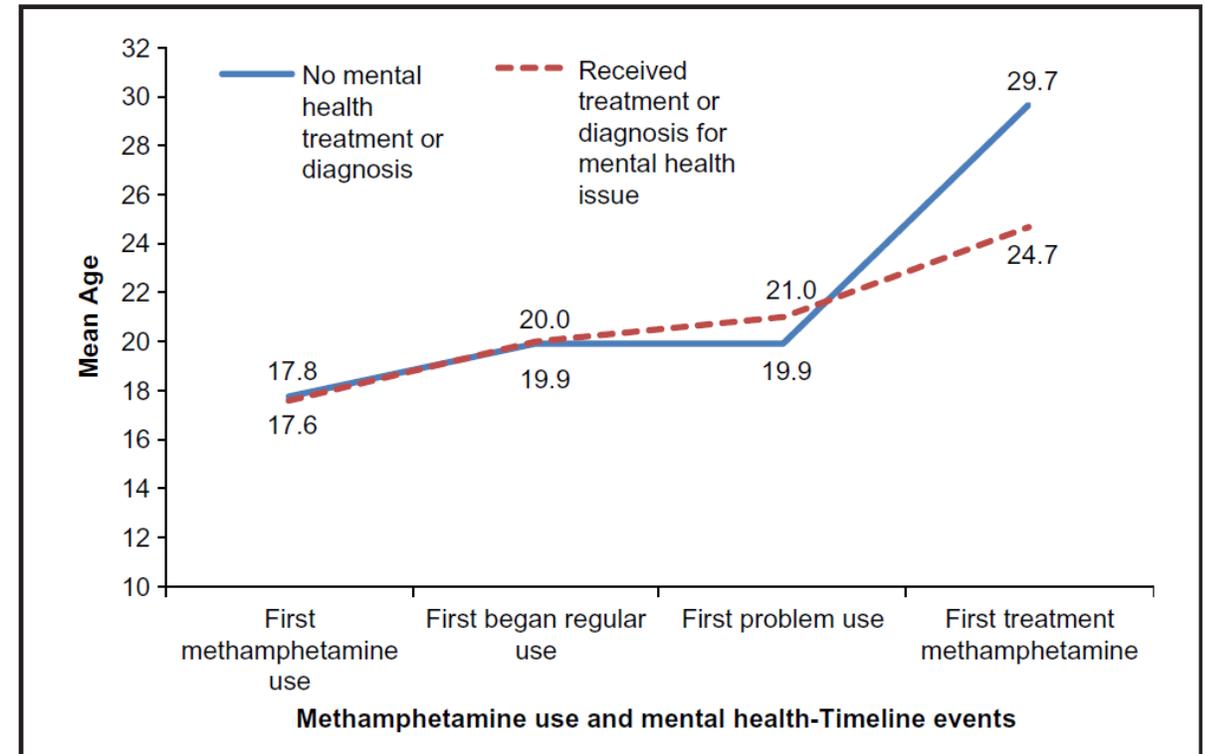
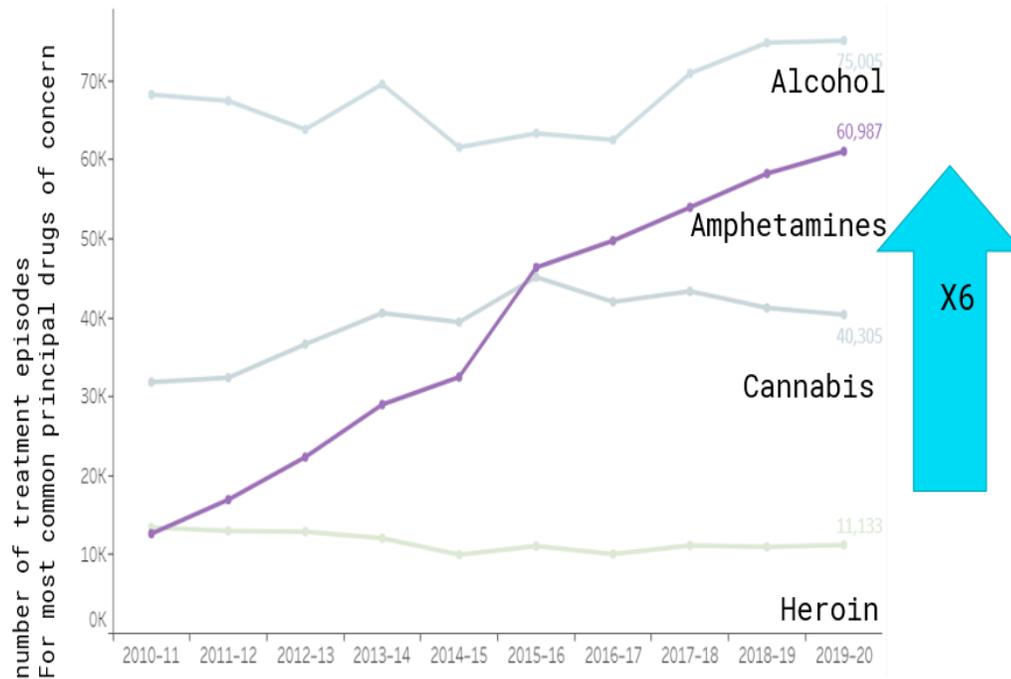
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    - NCCRED is funded by the Australian Department of Health and Aging
- FB, KJS, NE (0.5) are employed by NCCRED
- NE (0.5) is employed by St Vincent's Hospital Sydney

# Background

- Frequent use of methamphetamines (MA) can lead to adverse physical, mental health and social effects <sup>1,2</sup>
- Australia has one of the highest rates of MA use and use disorder globally <sup>3</sup>
- There is no pharmacotherapy for MA use disorder <sup>4</sup>
- Psychosocial therapy is mainstay of treatment <sup>5</sup>
  - (CBT, MI, DBT)
  - effects are not sustained

# Background

- Treatment demand is increasing, likewise treatment delays
- Average 10 years from first problematic use to engagement with treatment service <sup>2</sup>



# The S-Check App

## Methamphetamine use

- Frequency, amount, previous treatment, Severity of Dependence Scale

## Physical health

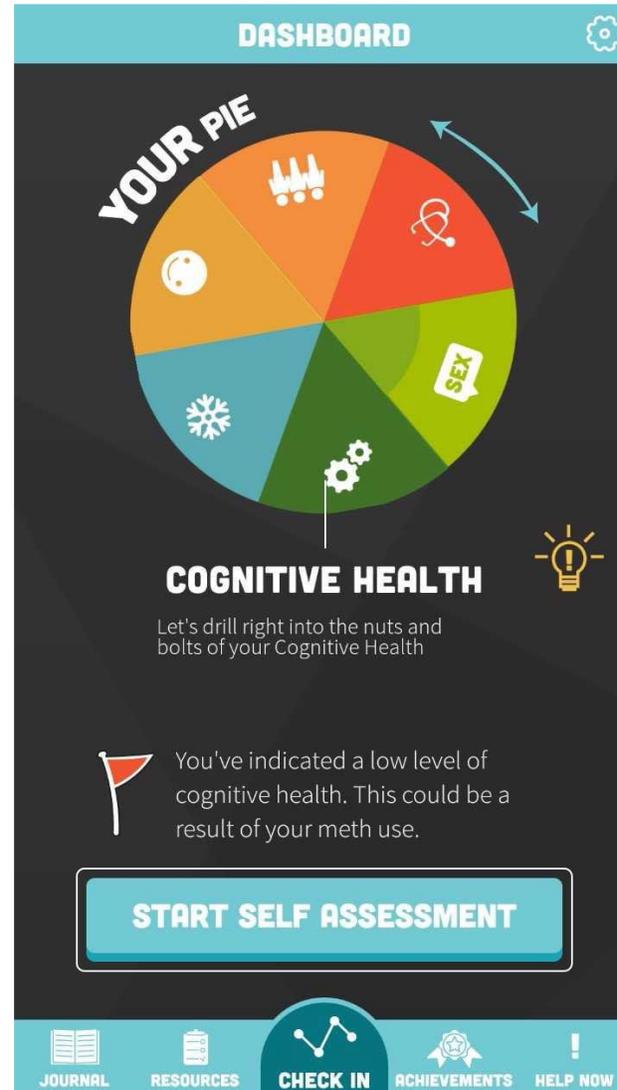
- Route of MA administration, family history, polysubstance use

## Psychological wellbeing

- Mood rating, WHO Well-being index, K10, Patient Health Questionnaire (PHQ-9 – depression)

## Social health and lifestyle

- WHO Quality of life scale, S-Check psychosocial assessment



## Sexual health

- chemsex, behaviours associated with sexual health risk

## Cognitive health

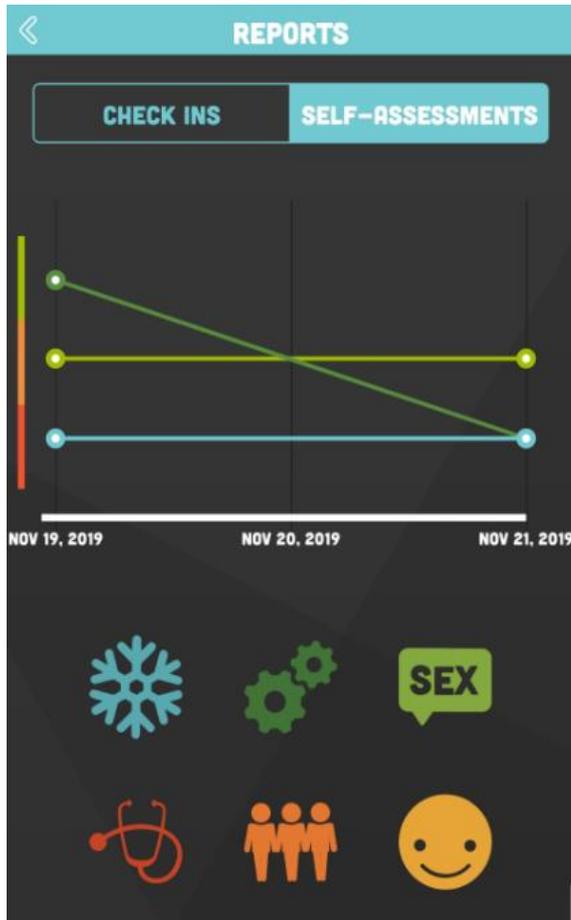
- General functioning, quality of life in neurological disorders – cognitive function, PQ-16 (psychosis screener)

- Developed based on S-Check clinic model of care <sup>1</sup>
- Piloted as an app in n=10 (feasible, acceptable) <sup>2</sup>

# The S-Check App

Theories incorporated	Aims
eHealth Behaviour Management Model	Promote earlier help-seeking
Ecological momentary interventions	Provide relevant information resources, bespoke GP letter based on responses
Transtheoretical model of behavioural change	Supportive feedback based on principles of persuasive communication; tailored to participant responses
Theory of planned behaviour change model	
Bio-psychosocial screening	Low threshold to identify patterns and risks / benefits (MA use, sexual health, social health, psychological wellbeing, physical health, cognitive health)
Motivational interviewing	Behaviour change

# The S-Check App




**SOCIAL HEALTH & LIFESTYLE**

OVERALL SATISFACTION

DAY TO DAY ACTIVITIES

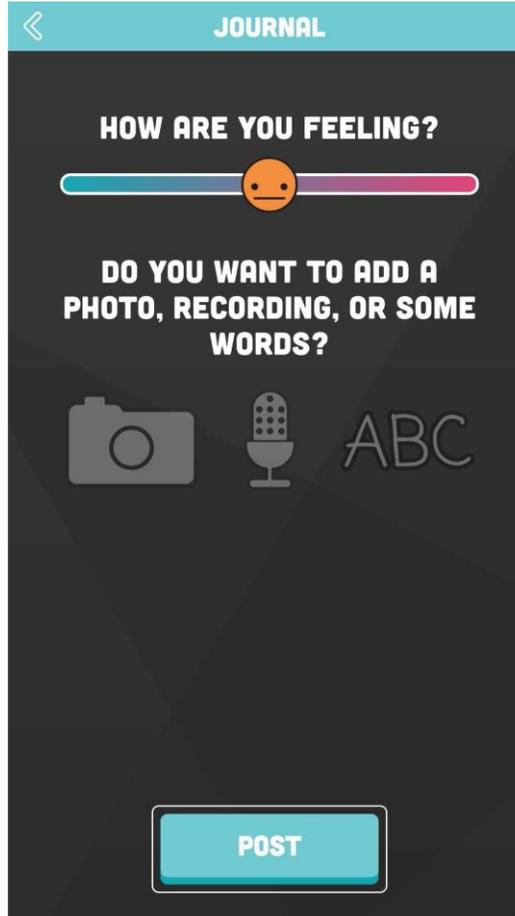
much you gamble? If so, how often?

**DAY TO DAY ACTIVITIES**

You've indicated that your Crystal use affects your day to day activities. When Crystal is having this much of an impact, it's also likely to be impairing your quality of life. It would be good to start looking at how you can address these issues to make some positive changes. You've finished the Social Health & Lifestyle assessment, now try one of the other sections. Tap the back arrow to go back to the Dashboard.

OK

Not Answered | Not a problem | A little problem | A medium problem | A large problem | A gigantic problem



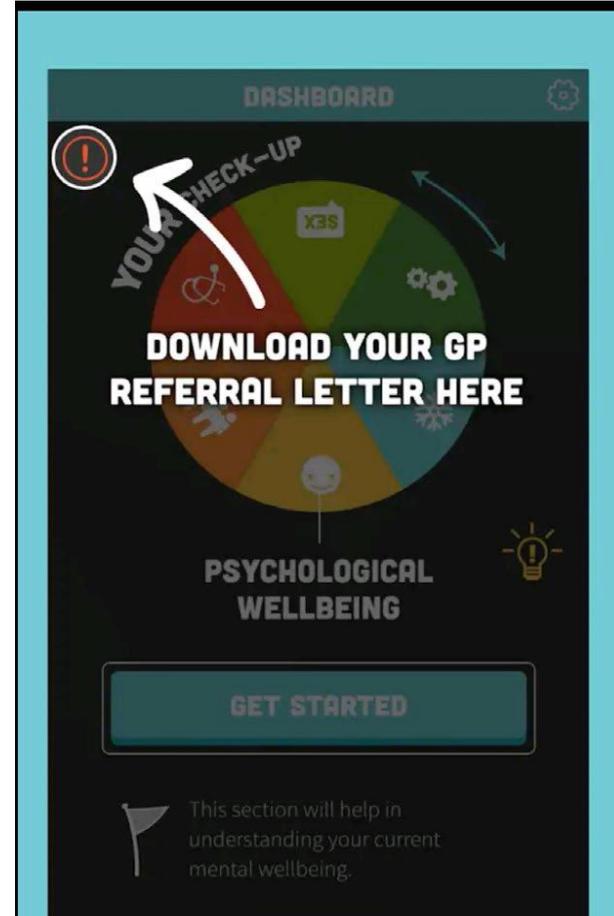
**JOURNAL**

HOW ARE YOU FEELING?

DO YOU WANT TO ADD A PHOTO, RECORDING, OR SOME WORDS?

ABC

POST



**DASHBOARD**

YOUR CHECK-UP

**DOWNLOAD YOUR GP REFERRAL LETTER HERE**

PSYCHOLOGICAL WELLBEING

GET STARTED

This section will help in understanding your current mental wellbeing.

# Methods

- **Randomised, 28-day waitlist controlled trial**
- Participants were allocated 1:1 to access the **S-Check app immediately** (intervention group) or after a **28-day waitlist period** (control group)
- **Eligibility** criteria:
  - ≥18 years
  - Living in Australia
  - Self-reported MA use of at least once in the month prior to enrolment
  - Private access to a smartphone
- All participants had access to the app through to Day 56

# Methods

- **Primary outcome: between-group differences in motivation towards behavioural change (Day 28)**
  - **intention to seek help** – General help screening questionnaire (GHSQ);
  - **recent help seeking** – Modified actual help seeking questionnaire (AHSQ);
  - **motivation / readiness to change** - Readiness ruler
- **Secondary outcomes:** Predictors of app engagement, assessment of most commonly accessed app features, number of days MA consumption in last 28 days, feasibility and acceptability, relationship between readiness to change, help seeking and MA use and duration of time in app

# Results

- 560 participants downloaded the app
  - **259** (46%) completed the eConsent and baseline survey
  - **84** (32%) provided data at Day 28
    - 33 intervention, 51 control
- Mean age **38 years** (SD 10)
  - Age of first MA use **26 years** (SD 10)
- Half (50%) identified as gay men
- 15 (SD 9) mean days MA use in past 28 days
- 144 (56%) reported injecting MA in past 28 days
- 159 (61%) had no history of treatment of problems r/t MA use

# Results

- Professional help-seeking (AHSQ) increased amongst the intervention group at Day 28 ( $p=0.036$ )
- Nearly twice the proportion of participants in the intervention group sought professional help by Day 28 as compared to waitlist controls (46% vs 24%,  $p=0.04$ )
- No difference between groups in measures of intention to seek help (GHSQ) or readiness to change (RR)
- For those participants not seeking help at baseline, each minute in the App increased the likelihood of seeking professional help by Day 28 by 8% (OR 1.08,  $p=0.04$ )
- There was an association between increased App use and decreased MA use over the 28 days ( $p=0.02$ )

# Limitations

- High attrition baseline → Day 28
  - Retention was 32%
  - Emerging evidence indicates mHealth studies generally achieve retention <30%
- Aimed to recruit n=510 (achieved n=259)
  - Sample size sufficient to detect effect in actual health-seeking behaviour, but unknown if we would have detected difference in other outcomes
- Possibility the recruited sample was already motivated to change
  - Downloaded an app to track MA use

# Discussion

- Early interventions are required
- Options that can be accessed anywhere (rural, remote) at any time

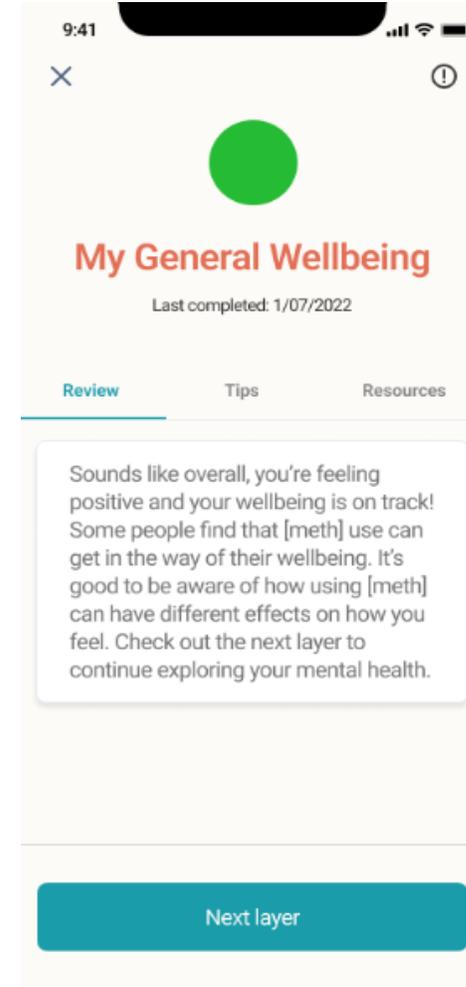
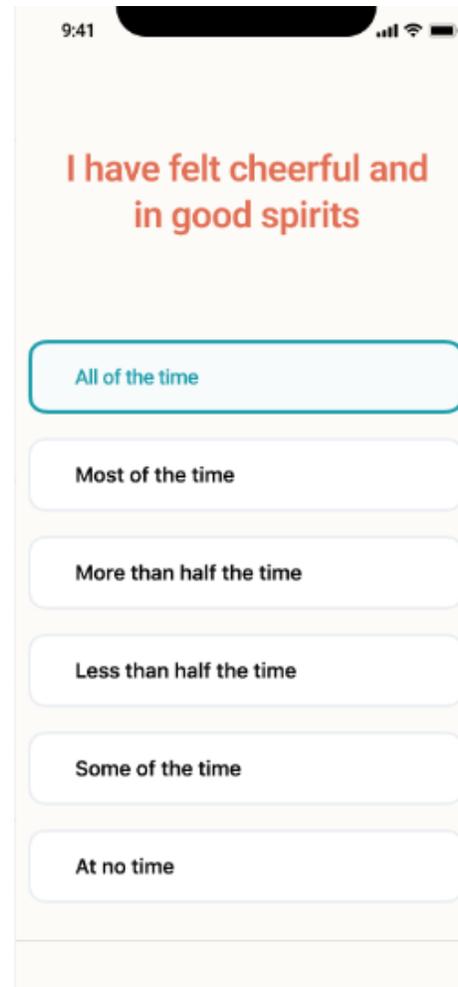
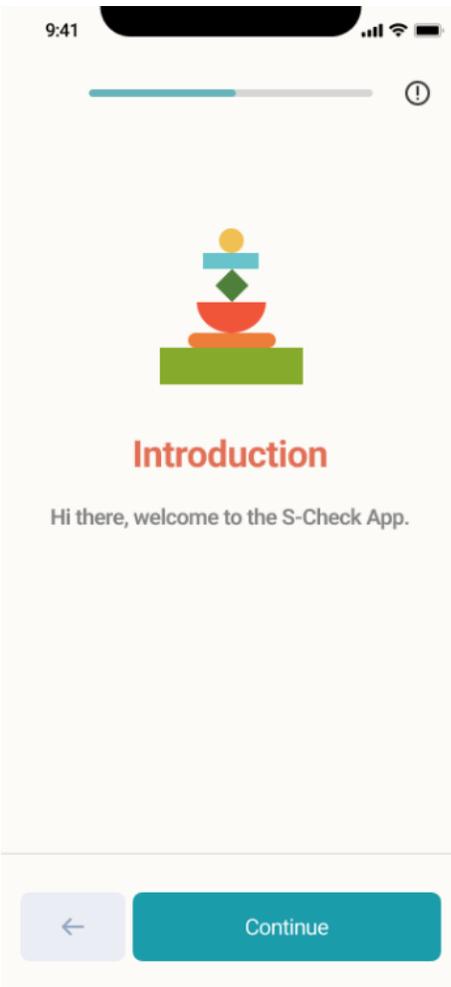
Possible future directions for the S-Check App:

- Potential to utilise the app while on wait lists
- Potential to utilise the app under clinician supervision
- Potential for the app to be a resource to AOD workforce with less professional training / supervision

# Translation

- In response to the S-Check App RCT findings, and with a view to continue to assess its efficacy in other populations / settings, the S-Check App has been translated into a resource that will be launched in early 2023
- Changes made in response to qualitative findings (presented elsewhere) to incorporate participant feedback

# Translation – Sneak peek!



# Acknowledgements

## Advisory Group:

- Ms Ruth Hennessy (The Albion Centre)
- Mr Daniel Herman (Mindright Clinical Psychologists)
- Dr Hila Haskelberg (St Vincent's Hospital, Sydney)
- Dr Michael Millard (St Vincent's Hospital, Sydney)
- Ms Maureen Steele (St Vincent's Hospital, Sydney)
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- Mr Jack Freestone (Aids Council of New South Wales [ACON])
- Assoc. Prof. Anna McNulty (Sydney Sexual Health Centre [SSHC])
- Ms Chris Keyes (Central and Eastern Sydney Primary Healthcare Network [CESPHN])
- Ms Debbie Kaplan (New South Wales [NSW] Ministry of Health)
- Mr Thomas Capell-Hattam (New South Wales Users and Aids Association [NUAA])

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