Feasibility & outcomes of a web-based program targeting PLEs among young cannabis users

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The Continuum of Psychosis

- No Psychotic Symptoms
- PLEs
- Psychotic Symptoms
- Psychotic disorders

(Moore et al. 2007)
PLE’S

• subclinical psychotic symptoms, which include delusions and hallucinations.

• 12-month prevalence rates 17%—28%

• share many genetic, social and environmental risk factors with the clinical phenotype of psychosis

  (Kelleher and Cannon, 2011)

• Increase risk of psychosis (16-28x), depressive or anxiety disorder (5-6x) & suicide (3-4x)

  (Bak et al., 2003; Nishida et al., 2010; Poulton et al 2000; Varghese et al., 2011)

Cannabis and PLE’S

More frequent PLES

• Age of onset (< age 16)

• THC +ve hair samples/IV THC (Mason et al., 2009, Morgan et al., 2012)

• More frequent cannabis use (Miettunen et al., 2008, Hides et al., 2009, Skinner et al., 2011)

• Dose-response relationship (Henquet et al., 2005, Kuepper et al., 2011, Mackie et al., 2011)

• ESM: 90% reported PLEs in the same week (Verdoux et al., 2003)

• Over 20 years (Rössler et al., 2007)

  o Weekly cannabis users 4.3 x risk continuously high PLEs

  o Occasional cannabis users 2.3 x “
Unlikely to seek professional help

- Important opportunity for early intervention is being missed

- Many cannabis users with PLE’s don’t present to health services
  - receive emergency treatment without follow-up

- Web/mobile based programs provide a highly accessible, anonymous way of delivering treatment to this at-risk group to prevent a range of psychopathology

Aim

To evaluate the feasibility and outcomes of web-based program for reducing the frequency of cannabis use & PLEs in young cannabis users
Keep it Real

Project Team:
Leanne Hides, Stoyan Stoyanov, Wendell Cocksaw, Oksana Zelenko, & David Kavanagh

• Brief, youth friendly, customizable, anonymous, mobile-responsive web program
• Participatory design workshops guided program development

Aims:
• To improve the ability to identify, understand and reduce PLEs and distress associated with them
• To reduce cannabis use & increase understanding of its relationship with PLEs
• To teach cognitive-behavioral coping strategies
• To facilitate appropriate help-seeking.
What are weird experiences?

We call these weird experiences Weird experiences are mostly odd or unusual ideas or experiences. People sometimes get worried about them, but a lot of the time they are nothing to worry about and are quite common.

Schizophrenia or psychosis is different

Weird experiences are like the symptoms people with psychosis or schizophrenia have but they:

Why are they happening?

My weird experiences could be happening because...

What I’m Thinking
- They are part of my thoughts or worries
- Other people are experiencing the same thing
- I might be getting confused about things
- They’re part of my imagination
- I have been thinking about bad memories

What I’m feeling
- I’m really upset or worried about something
- I’m really tired
- I’m really stressed

What’s happened recently
- Someone has been hassling me and it’s really stressing me out
- I’m really missing somebody important to me, who has died
- I’ve been really sick lately
How does cannabis affect me?

Cannabis is the most commonly used illicit drug in the world. 20% of young Australians have used cannabis in the past year.

Cannabis use has been strongly linked to psychosis. People who have ever used cannabis have

- 2.6x increased risk of developing a psychotic disorder (like schizophrenia)
- 14x increased risk of developing psychosis

Cannabis has also been strongly linked to weird experiences. 81% of young Australian cannabis users reported experiencing more than 3 weird experiences in the same month.

Drugs like cannabis can result in feelings of paranoia, and can make you see and hear things that aren't there. It can also make you feel paranoid or have false beliefs or delusions. If you experience any of these effects, especially if they're new or unusual, it's important to seek help. You can talk to someone you trust, like a friend, family member, or healthcare provider, or call a crisis service. It's also important to remember that cannabis may cause changes in your mood, behavior, or thinking. If you're concerned about your use, it's important to talk to someone who can help you. You can find more information on the National Mental Health Council's website. Keep it Real.
How can I deal with stuff?

Participants

• N=213 young people (16-25 years)
• Had used cannabis in the past month
• Had at least 3 PLEs ‘sometimes’ or 1 PLE ‘nearly always’ in the past 3 months on the CAPE15 (total score of >18)
• Negative psychosis screen.

• Male: 78.1%  Age: 20.9 (SD=2.30)
• Work: Unemp 9%; Empl 40%; Student 51%
• Family Hx of psychosis 14.1%
Measures

Youth Risk Behaviour Survey (YRBS)
- Lifetime cannabis, ecstasy, amphetamine and cocaine use & 12 month cannabis use (1 or 2 to ≥ 100 times)
- Past month cannabis use (1 or 2 to ≥ 40 times)
- Time since last cannabis use
- Cumulative lifetime cannabis use

Community Assessment of Psychic Experiences (not-related to cannabis use)
- CAPE15 (Capra, Kavanagh, Hides and Scott, 2013; 2015)
- CFA: 3 subscales
  - Bizarre experiences
  - Persecutory ideas
  - Perceptual abnormalities
- Assessments: baseline, 3 & 6 mths follow-up.
- High follow-up rates: 89% (3m) & 85% (6m)

Substance Use

<table>
<thead>
<tr>
<th>Drug</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cannabis</td>
<td></td>
</tr>
<tr>
<td>Age of onset Cannabis</td>
<td>16.5 years (SD=2.19)</td>
</tr>
<tr>
<td>Past 12 month frequency</td>
<td></td>
</tr>
<tr>
<td>&gt; 10 times</td>
<td>18%</td>
</tr>
<tr>
<td>&gt; 100 times</td>
<td>57%</td>
</tr>
<tr>
<td>Past Month frequency</td>
<td></td>
</tr>
<tr>
<td>&gt; 10 times</td>
<td>56%</td>
</tr>
<tr>
<td>&gt; 40 times</td>
<td>22%</td>
</tr>
<tr>
<td>Last Use</td>
<td></td>
</tr>
<tr>
<td>Past 48 hours</td>
<td>51%</td>
</tr>
<tr>
<td>Typical Alcohol in Past Year</td>
<td></td>
</tr>
<tr>
<td>&gt; 7 SDUs</td>
<td>16%</td>
</tr>
<tr>
<td>Lifetime</td>
<td></td>
</tr>
<tr>
<td>Ecstasy</td>
<td>47%</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>31%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>30%</td>
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</tbody>
</table>
Results

Program use
• 95% accessed the CAPE15 feedback
• Mean of 2.94 (SD=1.82) of the 6 modules

Feedback
Overall rating 75% Pretty good/Excellent
Helpful 83% Somewhat/Very/Extremely
Credible 91% “
Easy to understand 91%
Relevance 92%
Reductions in PLEs

Reductions in Cannabis Use
Conclusions

• Preliminary evidence for the feasibility, acceptability and positive impact of KiR on PLEs and cannabis use

• Cannabis users achieved:
  • Significant, moderate to large reductions in cannabis use and related problems as well as PLEs & associated distress

• A full scale RCT is required to establish program efficacy relative to no/delayed-access, web-based information/programs & as an adjunct to face-to-face treatment

Thank you!

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