InDEx

A tailored alcohol app for ex-serving personnel

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Is there a problem with drinking in the UK military?

PREVALENCE OF ALCOHOL MISUSE

Military population

General population

KCMHR cohort study phase 3; Adult Psychiatric Morbidity Survey 2014
Why do military personnel drink?

To cope with distressing/disturbing thoughts

To escape from your troubles

Because of loneliness

To get drunk

To forget the past

It helps when you feel depressed/nervous

To cheer you up when you’re in a bad mood

Because your friends put pressure on you

To fit in with a group

To be sociable

So you won’t feel left out

Irizar et al. (2019), in preparation
Why target at the time of leaving?

- ~20,000 military personnel leave each year;
- TRANSITION - Teachable ‘moment’ to educate and intervene;
- FINANCIAL – alcohol prices are higher in ‘civvy’ street;
- FAMILY – spending more time with family and friends.
Why mobile health?

- **Traditional treatment pathways;**
  - Face-to-face;
  - Identification and brief advice;
  - Costly to NHS and issues of underreporting;

  - **Strong evidence-base** that computer delivered alcohol interventions are effective (general population);

  - **Personalised content** (e.g. text messages, push notifications) can be effective in altering behaviours.

Kaner et al., 2017, Cochrane Systematic Review
Objectives

1. To develop a tailored alcohol app combined with text messaging for ex-serving personnel

2. To conduct a feasibility study to investigate the usability of this alcohol app in ex-serving personnel

3. To carry out qualitative interviews to examine the acceptability of the alcohol app
InDEx

Feel better and save money by drinking less alcohol
### How is *InDEx* different to other apps?

<table>
<thead>
<tr>
<th>Content tailored to serving personnel</th>
<th>Focused on shorter term outcomes e.g. impact on relationship</th>
<th>Content driven by user feedback and interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily <em>personalised</em> text messages and/or push notifications</td>
<td>Weekly assessments of mood and drinking behaviours to inform personalisation</td>
<td>App split into stages using HAPA model</td>
</tr>
</tbody>
</table>

Behavioural Change Theory underpins all *InDEx* components
**InDEx Overview**

- Designed as a [minimum] 1-month intervention using a staged approach
  - **Stage 1:** Normative feedback, promote self-efficacy and self-monitoring;
  - **Stage 2:** Maintenance of self-efficacy and introduce goal/action planning;
  - **Stage 3:** Managing self-efficacy and coping development;
- Codesigned alongside the armed forces community

**Core modules:**
- **Self-monitoring** (drinks, mood, behaviours);
- **Feedback** (visual indicators of drinking behaviours);
- **Goal setting and review** (implementation intentions);
- **Tailored text messages** (personalised to drinking habits).
Evening Dan, if you’re off out tonight – maybe you should think about **singles instead of doubles**? It would have saved you £6.70 last weekend.

**Past behaviour** (which day of week)

**User generated goal** (to save money)

**Behaviour change** (reduce consumption)
The feasibility study – Engagement

31 participants with AUDIT scores 8-19 registered for InDEx (87% male and 13% female)
84% (26/31) reported serving in the military for 12 years or more

<table>
<thead>
<tr>
<th>Engagement Measure</th>
<th>Median</th>
<th>Interquartile range</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of sessions</td>
<td>29.0</td>
<td>20.0 – 40.5</td>
</tr>
<tr>
<td>Session duration</td>
<td>48.8</td>
<td>35.1-73.1</td>
</tr>
<tr>
<td>(seconds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks active</td>
<td>4.0</td>
<td>3.0– 4.0</td>
</tr>
</tbody>
</table>

23 (71.2%) of participants used the app every week (maximum 4 weeks), with 27 (87.1%) using the app in the final week
Did users change their behaviour?

<table>
<thead>
<tr>
<th>Reported alcohol consumption</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking days</td>
<td>4.0</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Drink free days</td>
<td>3.0</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Units per drinking day</td>
<td>5.6</td>
<td>6.5</td>
<td>4.54</td>
<td>4.7</td>
</tr>
<tr>
<td>Units consumed</td>
<td>22.9</td>
<td>20.4</td>
<td>18.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Alcoholic drinks per drinking day</td>
<td>2.0</td>
<td>3.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Binge drinking days per week</td>
<td>2.0</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Theme one: Credibility

- Comparison to other apps
- Preconceptions of their drinking
- Trusting information in the app

“Because again (sigh) I don’t see myself as a... as a big drinker. So I... I’m not really doing more than twenty units in a week and I tend not to drink too much during the week,...”

Participants referenced their own drinking and experience of using other apps to determine how credible the app and its specific features were.
Theme two: Meeting their needs

- Personalisation
- Internal motivations
- Being non-judgemental
- The need for flexibility

“…if I started getting (messages) like Thursday to Sunday when I’m more likely to be drinking, it’ll probably make me more mindful. Whereas if you give them all the time, you start to go yeah that’s another message. Like if you’re only getting them maybe on certain days of the week when you’re likely to drink more… it… maybe that will make you a bit more mindful of it.”

Participants consistently emphasised that they used apps on a needs-only basis. The key features, such as real-time feedback, comparisons to other health behaviours and goal-setting, seemed to accommodate participants’ needs.
Theme three: Helpful for ex-serving personnel

- **Increased accountability**

- **Change of drinking habits and awareness**

- **Suitability for types of drinkers**

  "..."Eye-opening, you know. All of a sudden it’s in terms of... I’ve had (umm) nine units of alcohol and that’s two burgers, or three burgers or... or that’s an hours walking I’ve got to do! (laugh) Oh! Idiot!.”

  "...I think it would be very useful as part of the resettlement package just as a... you know you get a housing brief, you get a finance brief...”

Participants believed InDEx was particularly useful for heavier drinking ex-serving personnel interested in reducing their alcohol consumption, even though most participants scored as hazardous drinkers.
Conclusions and implications

• Measures of engagement were encouraging across a 4-week period
• Most personnel used the app primarily for self-monitoring
  • Use of goal setting was limited - related to perceived need to change drinking
• Pages which provided real-time personalised, credible feedback on drinking were favoured
• Potential to deliver InDEx on a larger scale to UK ex-serving personnel
• Next steps: Randomised Controlled Trial, public release and further development.
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Project website: www.index-app.org


Co-investigators: Ms JoAnne Puddephatt, Dr Dan Leightley, Professor Nicola T. Fear, Professor Roberto Rona, Professor Colin Drummond, Lt Col Norman Jones, Dr Toktam Mahmoodi and Professor Matt Field