Can Amazon’s Mechanical Turk be used to recruit participants for Internet intervention trials?

A pilot study involving an RCT of a brief online intervention for hazardous alcohol use

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Purpose

• To test the feasibility of recruiting for alcohol Internet intervention trials through MTurk
  – Mechanical Turk is an online portal operated by Amazon
  – ‘requesters’ (individuals or businesses) can submit jobs for ‘workers’ (more than half a million people who have signed up to complete jobs on MTurk) to complete for pay.
  – Essentially anonymous

• MTurk used extensively in social sciences research
Methods

• Separate recruitments for 4 trials
  – **Trial 1: September, 2016**; Trial 2: December, 2016; Trial 3: January, 2017; March, 2017

• ‘Survey on people’s drinking’
  – 18 years or older, weekly drinkers
  – $1.50 payment, less than 15 minutes

• Next Step: Identify hazardous drinkers and recruit for follow-up survey (plus randomize to receive or not receive an online intervention).
## Baseline survey recruitment

<table>
<thead>
<tr>
<th></th>
<th>Trial 1</th>
<th>Trial 2</th>
<th>Trial 3</th>
<th>Trial 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration of recruitment</strong></td>
<td>3 hours</td>
<td>7 days</td>
<td>9 days</td>
<td>32 days</td>
</tr>
<tr>
<td><strong>Total # (N)</strong></td>
<td>1252</td>
<td>4943</td>
<td>5412</td>
<td>5846</td>
</tr>
<tr>
<td><strong>% removed</strong></td>
<td>30.0</td>
<td>34.4</td>
<td>36.1</td>
<td>39.5</td>
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<tr>
<td><strong>Final</strong></td>
<td>871</td>
<td>3244</td>
<td>3456</td>
<td>3536</td>
</tr>
</tbody>
</table>
Methods: RCT recruitment

• Identify participants: AUDIT 8 or more
• Invite to take part in 3-month fu ($10)
  – Mention that some will be asked their impressions of additional materials
• Randomize to be sent password to access Check Your Drinking vs nothing
• 3 month follow-up
• Of the 871 baselines, 423 eligible and agreed
  – 35 years old, 57% male, 71% some post-secondary education, 73% full-time employed
  – 14.3 AUDIT, 18.6 drinks/week, 13.5% ever treated
Example brief intervention

- www.checkyourdrinking.net
  - 18 Item Survey Contains:
    - AUDIT
    - Drinking on each day of a typical week
    - Greatest amount on a single occasion
    - Experience of psychosocial consequences
    - Demographics

- Normative comparison data for USA, Canada and United Kingdom
What is the intervention?
Reducing Your Risk

There are many things that you can do to reduce the risk of hurting yourself or others. Here are some small steps you can take to start making a change:

- Don’t drink in any situation where there’s a risk of accident or injury — for example, drinking and driving.
- Don’t mix alcohol with other drugs — especially other depressants like tranquilizers, barbiturates, heroin or other opioids.
- Try to reduce, by one or two drinks, the number of days you drink each week.
- Decide how much you will drink ahead of time and keep yourself to this limit.
- Take a limited amount of money with you if you go out to have a drink.
- Keep track of the amount you drink.
- Alternate alcoholic beverages with non-alcoholic beverages when you drink.
- Choose alcoholic beverages with lower alcohol content.
- If you are out drinking with friends, make sure at least one person stays sober. If that person is driving they should not drink any alcohol at all.
- Do not become intoxicated with people you do not know and trust; criminal victimization is a much greater risk when you are drunk.
- Remember the need to practice safer sex — always use condoms.

What is the intervention?
Follow-up

• 85% follow-up rate
• 38% of participants in intervention condition (n = 214) accessed the CYD (214 used in analyses)
• Primary outcome variable – Drinks per week
  – No impact of providing access to the intervention
• Secondary outcomes – AUDIT-C, Highest number, # of consequences
  – Only AUDIT-C showed an impact of the being provided access to the intervention
AUDIT-Consumption subscale

Time X Condition = .004
Summary

• Possible to recruit large numbers of hazardous drinkers and to follow them up
  – Recruitment slows down after a few thousand

• Methods needed to improve compliance with accessing the intervention
  – Possible explanation for limited evidence of impact?

• Unusual sample – generalizability of the results?
  – Experienced survey completers (Median = 500) who are doing this for pay

• Useful sample during the development phase of an intervention
Declarations

• Sources of funding
  – Canada Research Chair in Addictions
  – Canadian Institutes of Health Research

• No conflicts of interest to declare

• For more information, see: