Strengthening the evidence base: IBA research update

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Identification and Brief Advice: Research Update

1. Is IBA effective?
2. Are there any remaining evidence gaps?
3. How can we get IBA into practice?
4. What next for IBA research?
Q1: Is IBA effective?
The IBA evidence base

- Over 30 years of research examining impact of IBA in primary care and (more recently) other settings.
- 24 systematic reviews covering at least 56 high quality studies in primary care alone (O’Donnell et al 2014).
- Consistent message → IBA is effective at reducing the quantity, frequency and intensity of drinking when delivered in primary healthcare.
- Evidence more equivocal in other settings (A&E, workplace, social services).
Impact on alcohol consumption

- For every eight people who receive simple alcohol advice, one will reduce their drinking to within lower-risk levels (Moyer et al., 2002).

- Kaner et al (2007) showed that IBA reduced the quantity of alcohol drunk by an average 38 g per week.

- Varies by age → Jonas et al (2012) suggested effects may be lesser in older adults aged 65 and over (23g) and for young adults / college students aged 18-30 (23g).
Wider health impacts

- Other positive outcomes include:
  - Reduction in alcohol-related problems;
  - Reduced health-care utilization;
  - Improved mortality outcomes.

- A reduction from 50 units/week to 42 units/week will reduce the relative risk of alcohol-related conditions by some 14%, the attributable fractions by some 12%, and the absolute risk of lifetime alcohol-related death by some 20% (Anderson 2008).
Cost-effectiveness of IBA

- Estimated quality-adjusted life-year (QALY) gain associated with IBA ranges from 4-19 per 1000 (Anderson 2009).
- IBA based on new patient registrations and delivered by a practice nurse provides modest cost savings to the health care system of £120m over 30 years and health gains over the same period amount to 32,000 QALYs, at £6900 per QALY gained (Purshouse et al 2009).
- Doctor-delivered IBA would be more expensive but result in incremental health gains equivalent to 92,000 QALYs, at £1175 per QALY gained (Purshouse et al 2009).
IBA compared with other public health interventions for alcohol

<table>
<thead>
<tr>
<th>Intervention(s)</th>
<th>Coverage (%)</th>
<th>Annual cost per million persons</th>
<th>Annual DALYs saved per million persons</th>
<th>$ per DALY saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>School-based education</td>
<td>80</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brief interventions for heavy drinkers</td>
<td>30</td>
<td>4.20</td>
<td>672</td>
<td>6256</td>
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<tr>
<td>Mass media campaign</td>
<td>80</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drink-driving legislation and enforcement (via random breath-testing campaigns)</td>
<td>80</td>
<td>0.77</td>
<td>204</td>
<td>3762</td>
</tr>
<tr>
<td>Reduced access to retail outlets</td>
<td>80</td>
<td>0.78</td>
<td>316</td>
<td>2475</td>
</tr>
<tr>
<td>Comprehensive advertising ban</td>
<td>95</td>
<td>0.78</td>
<td>351</td>
<td>2226</td>
</tr>
<tr>
<td>Increased excise taxation (by 20%)</td>
<td>95</td>
<td>1.09</td>
<td>2301</td>
<td>472</td>
</tr>
<tr>
<td>Increased excise taxation (by 50%)</td>
<td>95</td>
<td>1.09</td>
<td>2692</td>
<td>404</td>
</tr>
<tr>
<td>Tax enforcement (20% less unrecorded)</td>
<td>95</td>
<td>1.94</td>
<td>2069</td>
<td>939</td>
</tr>
<tr>
<td>Tax enforcement (50% less unrecorded)</td>
<td>95</td>
<td>2.21</td>
<td>2137</td>
<td>1034</td>
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</table>

Table 1: Costs, impact and cost-effectiveness of different policy options in Europe
1. To identify the most efficient and acceptable screening strategy and tool to detect hazardous and harmful drinking

2. To evaluate the effectiveness and cost effectiveness of different intensities of BI
SIPS: Study design and methods

- **Pragmatic Cluster RCT**
  - 24 general medical practices
  - England: North East, London, South East
  - 6 & 12 month follow-up

- **Screening strategy/tools**
  - Targeted or universal approach
  - FAST: 4 questions
  - M- SASQ: 1 question

- **Intervention conditions**
  - PIL - Patient Information Leaflet
  - BA – 5 mins brief advice + PIL
  - BLC – 20 mins brief lifestyle counselling + BA + PIL
SIPS: impact on AUDIT scores

Fig 1: Changes in % AUDIT + overall and by intervention at 6 and 12 months

29th April 2014  Strengthening the evidence base: IBA research update
• The cost of delivering the interventions was low, ranging from a mean of £2.40 for PIL, £18.71 for BA, to £71.00 for BLC.

• There were small put positive QALY gains in all groups although greater in the PIL group (not significant).

• Taking into account health service and criminal justice costs before and after intervention BLC generates a mean of £830 less costs to society than PIL whilst BA generates a mean of £1,200 less costs than PIL (not significant).
SIPS: Key findings

- High overall recruitment and follow-up rates in PHC
- High BI delivery immediately after screening
- BI delivery drops if subsequent visit is needed
- Risk drinking fell between baseline & follow-up
- **No significant differences between the 3 conditions**
- Gender and AUDIT score at outset predict outcome

(Kaner et al 2013)
Q2: What are the IBA evidence gaps?
Effectiveness of IBA in different populations

- Majority of previous IBA research conducted in high-income regions – and generally in the English language (Peltzer 2009).
- Equally effective in both men and women (Ballesteros et al 2004) but there is a lack of evidence for pregnant women (Jonas et al 2012).
- Inconclusive evidence of effectiveness in younger (aged <18) and older drinkers (aged 65>) (Jackson et al 2010, Jonas et al 2012)
- Also lack of data on impact in different socio-economic / ethic groups (Jackson et al 2010)
Length, frequency and content of IBA

- Lack of data on long term impact of IBA post-12 months
- Some evidence suggests brief, multi-contact most impactful but SIPS showed longer interventions not significantly beneficial.
- Limited understanding of the key active ingredients of IBA – feedback, advice and goal setting appear important (Whitlock, 2004)
Q3: How can we get IBA into practice?
IBA provision in routine care

- Provision of IBA remains sporadic - only about 1 in 20 of patients in primary health care settings who are risky drinkers are screened for alcohol consumption or offered brief advice.
- Even where IBA is being delivered, quality of content is questionable.
- Heavy reliance on identification via consumption questions (Khadjesari et al, 2013)

Fig 2: Are GPs familiar with and use standardised alcohol screening tools? (www.amphoraproject.net)
Barriers to IBA implementation in primary healthcare

- Many GPs remain unconvinced that patients will take such advice to change their drinking behaviour, particularly those patients drinking at heavy or dependent levels (Aira et al 2003).
- Practitioners are also concerned that they might offend patients by discussing alcohol or at least view alcohol as a ‘delicate’ subject to raise in the standard consultation situation (Moriaty et al 2012).
- Confusion about what advice they should actually be delivering on lower risk drinking (Hutchings et al 2006).
- Lack of training or suitable intervention materials (Aalto et al 2001)
- Inadequate financial incentives (Johnson et al 2010)
- Unsupportive specialist alcohol service provision (Kaner et al 1999)
- Everyday time pressures (Beich et al 2002)
## European survey data on implementation barriers

<table>
<thead>
<tr>
<th>Reason</th>
<th>N of responses</th>
<th>Percent of cases</th>
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<tbody>
<tr>
<td>Time constraints</td>
<td>209</td>
<td>70.6</td>
</tr>
<tr>
<td>Lack of financial incentives</td>
<td>87</td>
<td>29.4</td>
</tr>
<tr>
<td>Risk of upsetting the patient</td>
<td>147</td>
<td>49.7</td>
</tr>
<tr>
<td>Lack of training</td>
<td>60</td>
<td>20.3</td>
</tr>
<tr>
<td>Lack of services to refer patient to</td>
<td>67</td>
<td>22.6</td>
</tr>
<tr>
<td>Other reasons</td>
<td>81</td>
<td>27.4</td>
</tr>
</tbody>
</table>

Table 2: Main barriers to alcohol screening in primary care (www.amphoraproject.net)
Q4: What next for IBA research?
Finding out what works in which settings for younger drinkers

• SIPS JR-HIGH: A pilot feasibility trial (and planned definitive trial) of screening and brief alcohol interventions to prevent hazardous drinking in young people aged 14-15 in a high school setting.

• SIPS Junior: Developing and evaluating interventions for adolescent alcohol use disorders presenting through emergency departments
Optimising the implementation of IBA in primary health care and beyond

- Optimising Delivery of Health care INterventions (ODHIN):
  - Implementation study: health care providers in primary health care.
  - RCT to study the effect of providing various strategies (training, E-SBI, financial incentives) compared to controls on rates of IBA delivery.

- Brief InterventionS in the Treatment of Alcohol use disorders In Relevant Settings (BISTAIRS):
  - Aims to develop and test a set of tailored toolkits and training manuals to accelerate rates IBA delivery in various settings.
Effectiveness of IBA behaviour change techniques

- Study by Mitchie et al (2012) aimed to:
  - develop a reliable taxonomy of behaviour change techniques (BCTs) used in interventions to reduce excessive alcohol consumption (not to treat alcohol dependence).
  - to assess whether use of specific BCTs in brief interventions might be associated with improved effectiveness.

- Findings
  - Identified 42 BCTs in total
  - IBA that included the BCT ‘prompt self-recording’ were associated with larger effect sizes.
  - Concluded that promoting self-monitoring is associated with improved outcomes.
  - But...more research is needed!
Other key research questions

- Most impactful length and frequency of IBA.
- Opportunities to tackle risky drinking in non-PHC settings (workplace, CJS, social services).
- Potential for new modalities (e-Health; m-Health).
Any questions?
References


