Prize Winning Presentation

Reducing the standard serving size of alcoholic beverages decreases alcohol consumption: results from a semi-naturalistic experiment

Inge Kersbergen
REDUCING THE STANDARD SERVING SIZE OF ALCOHOLIC BEVERAGES DECREASES ALCOHOL CONSUMPTION: RESULTS FROM A SEMI-NATURALISTIC EXPERIMENT

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NUDGING
PORTION SIZE

Figure 7. Summary effect sizes (standardised mean differences) in subgroups of studies (consumption outcome)

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>N</th>
<th>SMD (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target of manipulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tableware</td>
<td>12</td>
<td>0.28 (0.07, 0.49)</td>
</tr>
<tr>
<td>Package</td>
<td>10</td>
<td>0.04 (0.27, 0.85)</td>
</tr>
<tr>
<td>Portion</td>
<td>56</td>
<td>0.37 (0.26, 0.48)</td>
</tr>
<tr>
<td>Individual unit</td>
<td>9</td>
<td>0.33 (0.07, 0.58)</td>
</tr>
<tr>
<td>Package with individual</td>
<td>3</td>
<td>0.22 (-0.13, 0.56)</td>
</tr>
</tbody>
</table>

Portion, package or tableware size for changing selection and consumption of food, alcohol and tobacco (Review)

Hollands GJ, Shemilt I, Marteau TM, Jebb SA, Lewis HB, Wei Y, Higgins JPT, Ogilvie D
SODA SIZE

TOO BIG TO GULP
How America’s sodas got so friggin’ huge

Original size of a McDonald’s Coke, 1955
7 ounces
Still thirsty? You’d have to order two.

McDonald’s kid-sized soda, today
12 ounces
Average 8-year-old’s bladder capacity: 10 ounces

Largest McDonald’s soda, 1974
21 ounces
Average adult’s bladder capacity: 20 ounces

7-11 Big Gulp, 1980
32 ounces
Slogan: “Freedom of choice”

McDonald’s Supersize, 1999
42 ounces
Dropped in 2004 as part of a “healthy lifestyle initiative”

KFC Mega Jug, 2011
64 ounces
$5 donated for juvenile diabetes research for each one sold

Kum & Go’s HuMUGous, 2005
100 ounces
When full of Coke, it contains 1,200 calories and 0.7 pounds of sugar.

7-11 Team Gulp, 2006
128 ounces
A full gallon, nearly twice the size of a two-liter bottle
—Azeen Ghorayshi
SODA SIZE

Norton et al. 2015

Flood et al. 2006
ALCOHOL SERVING SIZE

Do smaller alcohol servings reduce alcohol consumptions?

“I LIMIT MYSELF TO ONE GLASS OF WINE A DAY.”
114 participants (57 friend dyads)
74.6% female
86.1% white British/European
71.1% university student
Age $M = 25$ [18 – 62]
Drink $\geq 10$ UK units per week
SEMI-NATURALISTIC ENVIRONMENT
DRINKS ORDERING

Start: Experimenter asks (required order)

Video mid-point: Experimenter asks (optional order)

All other times: Press bell to order (optional)

Three drinks available:
SERVING SIZE MANIPULATION

25% reduction

**Normal:** 2.2 units/serving

**Small:** 1.6 units/serving

460ml 345ml 165ml 124ml
SERVING SIZE

- 21%
GENDER

Alcohol consumption (Units)

- Normal
- Small

- 15%

Female

Male
**DRINKING HABITS**

- **Within UK limits**
  - Normal: [Height]
  - Small: [Height]
  - Change: **- 20%**

- **Exceeding UK limits**
  - Normal: [Height]
  - Small: [Height]
  - Change: **- 24%**
**DRINKING RESTRAINT**

- **Low restraint:**
  - Normal: 4.0 UNITS
  - Small: 3.0 UNITS
  - Decrease: -24%

- **High restraint:**
  - Normal: 3.5 UNITS
  - Small: 2.5 UNITS
  - Decrease: -17%
A normal number of drinks to consume during the study would have been

Proportion of participants

- More than 5
- 4-5
- 3-4
- 2-3
- 1-2
- 0-1

Normal

Small
‘NORMAL’ CONSUMPTION?

Amount I drank was normal

Serving size was normal

- **Strongly disagree**
- **Disagree**
- **Unsure**
- **Agree**
- **Strongly agree**
LIMITATIONS

Short drinking period (~ 1 hour)

Artificial environment
FUTURE DIRECTIONS

Real world environment
Longer drinking period
Smaller servings than typical (e.g., 2/3 pints)
CONCLUSION

Reducing alcohol serving sizes might be an effective intervention to reduce population alcohol consumption.
QUESTIONS?