Workshop

Changing micro-environments ("Choice Architecture") to change behaviour: Towards a typology of interventions
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Changing micro-environments ("Choice Architecture") to change behaviour: Towards a typology of interventions
Gareth Hollands, Ian Shemilt, David Ogilvie, Stephen Sutton, Mike Kelly, Theresa Marteau
Workshop structure

• Introduction (15 minutes)

• Tasks and related discussion
  - Task 1 - Classifying Interventions (30 minutes)
  - Task 2 - Purpose of Developing a Typology (30 minutes)
Choice architecture

• Idea of ‘nudging’ people — changing the environments within which they make choices (choice architecture) — to change behaviour has gained traction in research and policy circles

• In health research, applied broadly to altering small-scale ‘micro’ environments to cue healthier behaviour without regulation or economic incentives
Some examples

Changing the size and shape of products
Placing prompts

Lee et al., Am J Prev Med 2012
• Changing layouts of environments

• Equipment design

• Visual presentation of product packaging
However…

• Significant potential but empirical evidence on effect size is limited, especially as applied to population health behaviour

• A coherent definition and map of evidence for choice architecture interventions has been missing, hampering their evaluation
Choice architecture scoping review

- Large-scale scoping review of interventions to change four key health behaviours
- Describing (not evaluating) an evidence base with uncertain characteristics

**Aims**

(a) Improve conceptual clarity (definition and typology)
(b) Map the existing primary and secondary research evidence to identify gaps and opportunities
Choice Architecture working definition

Interventions that involve altering
i. the properties or
ii. the placement
of objects or stimuli within micro-environments with the intention of changing health-related behaviour.

- Implemented within the same micro-environment as that in which the target behaviour is performed
- Typically require minimal conscious engagement
- Can influence behaviour of many people simultaneously
- Not targeted or tailored to specific individuals.
## Typology and Evidence Map

**Provisional Typology of Choice Architecture Interventions in Micro-Environments**

<table>
<thead>
<tr>
<th>Intervention class</th>
<th>Intervention type</th>
<th>Number of Study Reports (Combining Primary Research and Reviews)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Diet</td>
</tr>
<tr>
<td>Primarily alter properties of objects or stimuli</td>
<td>AMBIENCE - alter aesthetic or atmospheric aspects of the surrounding environment</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>FUNCTIONAL DESIGN - design or adapt equipment or function of the environment</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>LABELLING - apply labelling or endorsement information to product or at point-of-choice</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>PRESENTATION - alter sensory qualities or visual design of the product</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>SIZING - change size or quantity of the product</td>
<td>66</td>
</tr>
<tr>
<td>Primarily alter placement of objects or stimuli</td>
<td>AVAILABILITY - add behavioural options within a given micro-environment</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>PROXIMITY - make behavioural options easier (or harder) to engage with, requiring reduced (or increased) effort</td>
<td>21</td>
</tr>
<tr>
<td>Alter both properties and placement of objects or stimuli</td>
<td>PRIMING - place incidental cues in the environment to influence a non-conscious behavioural response</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>PROMPTING - use non-personalised information to promote or raise awareness of a behaviour</td>
<td>26</td>
</tr>
</tbody>
</table>
Any questions?
TASK 1

Ian Shemilt
Developing a useable typology

• Need for consistent inter-rater classification of interventions
• Needs to be comprehensive
Task 1

Note that provisional typology in booklets lists seven intervention types - Removed priming (mechanism rather than intervention type) and labelling (not sufficiently distinct from prompting)

<table>
<thead>
<tr>
<th>AMBIENCE</th>
<th>altering aesthetic or atmospheric aspects (e.g. lighting, music, decoration) of the environment surrounding a behaviour or product but which are independent of or incidental to it</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVAILABILITY</td>
<td>adding or removing products or behavioural options within a given environment</td>
</tr>
<tr>
<td>FUNCTIONAL DESIGN</td>
<td>altering the function (the way it is used) of objects or aspects of the environment that are central to performance of a behaviour</td>
</tr>
<tr>
<td>PRESENTATION</td>
<td>alter visual appearance or sensory qualities of the product itself</td>
</tr>
<tr>
<td>PROMPTING</td>
<td>provide standardised explicit verbal, visual and/or numeric information intending to communicate a message relating to a given behaviour</td>
</tr>
<tr>
<td>PROXIMITY</td>
<td>make behavioural options easier (or harder) to engage with by changing distance or visibility</td>
</tr>
<tr>
<td>SIZING</td>
<td>change size or physical dimensions of the target product or equipment used to engage with it</td>
</tr>
</tbody>
</table>
Discussion of Task 1
TASK 2

Mike Kelly
Developing a useable typology

• Uncertainty regarding future purpose and how it could most usefully be developed
  - Typology derived from nature of existing evidence base so shapes scope and content
  - Attempt to organise literature and identify major gaps, with corresponding level of granularity
  - Able to function in this way = enabled us to identify workable and conceptually meaningful systematic reviews.
  - Has been used to broadly frame the area (defined scope of NIHR call)

• How can it be developed to increase its value?
Discussion of Task 2
Next steps

• Collecting your booklets
• Include your email address for updates

www.bhru.iph.cam.ac.uk
@BHRUCambridge

THANK YOU!