The Perception of Body Image in Disordered Eating

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Anorexia Nervosa

BODY IMAGE DISTORTION

- DSM 5, criterion 3: Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.
- Two modalities of body-image dysfunction have been distinguished:
  1) Perceptual body-size distortion
  2) Attitudinal / cognitive-evaluative dissatisfaction

Perceptual distortion

Person has difficulty accurately gauging body size. Eating-disordered individuals estimate their size as larger than is objectively true.

Attitudinal distortion

Patient may estimate size accurately, but is extremely dissatisfied with size, shape, or some other aspect of body appearance.

Two Alternative Forced Choice (2AFC)

Button press: larger or smaller than me?

Estimate Point of Subjective Equality

Point of Subjective Equality (PSE)
Estimate Point of Subjective Equality

Estimate Point of Subjective Equality

Estimate Point of Subjective Equality

Estimate Sensitivity: Difference Limen

Two Alternative Forced Choice (2AFC)
Healthy Controls (n=100)

Illustrated results

ANSD (n=42)

What does this mean?

Ideal Bodies in Europe and the USA
UK vs South African Observers

Cauc uk-uk
Afr uk-uk
Afr zu-uk
Afr zu-zu

Attractiveness Ratings

BMI

Attractiveness Rating

BMI

Attractiveness Ratings

BMI

Attractiveness Rating

BMI

Attractiveness Ratings

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Nicaragua

- Villages with no electricity and no TV access
- Villages with limited electricity and limited TV access
- Villages with electricity and full TV access
- The government is rolling out electricity to villages currently with no electricity

Nicaragua Study

Two designs:
- Cross-Sectional – looking across villages with different levels of media access
- Longitudinal – looking at changes over time in villages which are being electrified.

Nicaragua: Cross Sectional Rating Study

- Managua - high levels of TV (n=41)
- Square Point – no TV (n=44)
- Kakabila – limited TV (n=66)

Nicaragua Study

- Adult women – their perception of their actual and ideal body
- Adult men – their perception of women’s bodies and their ideal partner
- Adolescent children – their perception of their actual and ideal body

Square Point Male Preference


Two Alternative Forced Choice (2-AFC)

Respond by button press "is the body fat or thin"

Categorical Judgements of Body Size


Categorical Judgements of Body Size


Training regime

Gledhill et al. British Journal of Health Psychology 2017, 22, 60-76.

Inflationary feedback

Participant told 'Correct' or 'Incorrect' relative to their Categorical Boundary + 2 BMI units

Inflationary feedback

Incorrect

That body was thin.
Training regime

<table>
<thead>
<tr>
<th>ANSD (n=21)</th>
<th>DAY 1</th>
<th>Psychometric tasks 2AFC Baseline &amp; Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DAY 2</td>
<td>2AFC Baseline &amp; Training</td>
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<td></td>
<td>DAY 3</td>
<td>2AFC Baseline &amp; Training</td>
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<td></td>
<td>DAY 4</td>
<td>2AFC Baseline &amp; Training Psychometric tasks</td>
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<td>DAY 7</td>
<td>2AFC Baseline Psychometric tasks</td>
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<td></td>
<td>DAY 30</td>
<td>2AFC Baseline Psychometric tasks</td>
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</tbody>
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Note: BMI = Body Mass Index.
BSQ = Body Shape Questionnaire.
EDE-Q = Eating Disorder Examination Questionnaire global score.

Gledhill et al. British Journal of Health Psychology 2017, 22, 60-76.

Results

Gledhill et al. British Journal of Health Psychology 2017, 22, 60-76.

Future Research

3D Scanning

Virtual Reality
Body size self-estimation tool

| i) Adjust slider to match actual / desired body size |
| ii) Program returns BMI of selected image |

OR

| i) Input known BMI |
| ii) Program shows appropriate image representing that BMI |

Visual feedback for motivation for adult weight loss and weight loss maintenance

Q: What would I look like? Do I want that? How can I stay motivated to lose the 10 kg and keep it off?

A: Visualization (map shape ↔ weight)

Motivating adult weight loss and its maintenance

The moving image...

The moving image...

Relax

It's all been a bad dream...

McCarty et al. (2017) Scientific Reports 7, 42435
Thank you for your attention

Any Questions?