4th World Congress on Interventional Therapies for Type 2 Diabetes

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Time to Think Differently About Obesity (and Diabetes)

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Stigma
Stigma

JOINT CONSENSUS CONFERENCE

1. What is it?

2. Does it Harm?

3. What causes it? (myths, beliefs, assumptions)

4. What can we do about it?
Reasons for a Bias

- Gap between science and the popular idea of obesity
- Misconceptions
- Obesity, an ill-defined condition and disease
MISCONCEPTIONS

“Prevention vs Treatment”
“Obesity should be prevented, not treated”

“We should focus our efforts on prevention of Obesity rather than spending tax-payer money on expensive therapies for morbid obesity”
Would this be acceptable?

“AIDS should be prevented, not treated”

“We should focus our efforts on prevention of HIV infection rather than spending tax-payer money on expensive therapies for AIDS”
Would this be acceptable?

DR MAX THE MIND DOCTOR: Jenni Murray and why weight-loss ops can offer false hope

Jenni’s a brilliant broadcaster, and I wish her well. But as someone who specialises in eating disorders, I’d like to warn others before they follow her path.

The way to avoid this misery is to get patients to address their underlying psychological issues through psychotherapy first.
MISCONCEPTIONS

“Obesity is a Lifestyle Choice”
“Lifestyle-related diseases”

Risk Factor

Smoking

> 

Disease

Cancer
Physiology, Pre-disease, Disease State

- Lifestyle Modifications
- Mechanical/Physical Remedies
- ‘Over the counter drugs”

“Point of No Return”

Physiologic Alterations or Mild Dysfunction; “Pre-disease”

Disease state

Medical Interventions (drugs, surgery, radiotherapy etc)

Depressed Mood

Clinical Depression
Misperceptions about Evidence
NHS squanders millions on fat surgery

A RECORD number of patients have had “quick-fix” obesity surgery on the NHS at a cost of £29million a year, shocking new figures show.
% of pts with T2DM who meet NICE (and International) criteria for surgery and have access to Surgical treatment
Numbers

Total costs

1.2 B

108.713  101.651

650 M  577 M

KNEE REPLACEMENT  HIP REPLACEMENT

66.660

CHOLECYSTECTOMY

175 M

25 M

BARIATRIC SURGERY

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Bariatric Surgery

Elective General Surgery
Cholecystectomy, Hernia Surgery, Reflux Surgery, Colorectal (benign)
Britain ‘prejudiced against fat people’
Obesity Stigma plotted against rate of Metabolic Surgery across four European Countries

- Sweden: High Metabolic Surgery rate and high Obesity Stigma Score
- Italy: Moderate Metabolic Surgery rate and moderate Obesity Stigma Score
- Germany: Low Metabolic Surgery rate and low Obesity Stigma Score
- United Kingdom: Low Metabolic Surgery rate and low Obesity Stigma Score

Metabolic Surgery rate as a proportion of obese population
Obesity Stigma Score
Obesity Surgery - U.S.

1. Which of the following treatments for obesity is most effective?

776 respondents

- Self-directed diet and exercise: 52.5%
- Intensive lifestyle programs: 26.1%
- Bariatric surgery: 15.9%
- Obesity medications: 5.5%

Diabetes Surgery - U.S.

1. Which of the following treatments for type 2 diabetes is most effective in people who also have obesity?

728 respondents

- Self-directed diet and exercise: 38.6%
- Intensive lifestyle programs: 24.8%
- Diabetes medications: 18.8%
- Bariatric surgery: 11.3%
- Obesity medications: 6.6%
Attitudes, Stigma & Knowledge: The ASK Study

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To understand attitudes towards and awareness of obesity and type 2 diabetes as well as beliefs about and stigma towards people with obesity and the role and value of treatments in an international sample of healthcare professionals (HCPs) and the general population.

N=3044
ASK Study: Stigmatizing Views & Treatment

Association between stigmatizing views and opinion that obesity could be cured by commitment to follow a healthy lifestyle.

In General Population and Healthcare Professionals, those that consider obesity to be curable through a commitment to a healthy lifestyle have more stigmatizing views.

*BAOP score used as proxy measure of stigma*
Results: Stigmatizing Views & Treatment

Association between stigmatizing views and opinion that T2DM could be cured by commitment to follow a healthy lifestyle.

In Gen Pop. and HCP those that consider T2DM to be curable through a commitment to a healthy lifestyle have more stigmatizing views.

*BAOP score used as proxy measure of stigma
ASK Study: Stigmatizing Views & Treatment

Association between stigmatizing views (as measured by BAOP) and opinion on most effective treatment for severe obesity (BMI >35 kg/m²)

*BAOP score used as proxy measure of stigma

In Gen Pop. and HCPs those that consider lifestyle intervention to be the most effective treatment for severe obesity have more stigmatizing views
Time to Think Differently About Obesity
DISEASE IS ILL-DEFINED
DEFINITION OF DISEASE

“a condition of the living animal or plant... that impairs normal functioning and is typically manifested by distinguishing signs and symptoms
(Merriam Webster)

... A DEVIATION FROM A BIOLOGICAL NORM
DEFINITION OF OBESITY

WHO: “Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health”.

NIH/NIDDK: “The terms “overweight” and “obesity” refer to body weight that is greater than what is considered normal or healthy for a certain height”.

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Weight and the Domino-Effect
Deviation from norm (?)

Which curve is normal?

Trends in age-standardised mean BMI by sex and region in males


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Increased level of Body Temperature, Hb, White blood Cells (like weight) can:

- reflect physiologic states
- result from distinct pathophysiologic mechanisms
- be associated with different disease and conditions
Mortality and BMI

A significantly increased risk of all-cause mortality was observed among blacks with BMI <30 kg/m$^2$ and ≥35 and among whites with BMI <25 kg/m$^2$ and ≥40 kg/m$^2$ compared with patients with BMI of 30 to 34.9 kg/m$^2$.

Hazard ratios for all-cause mortality based on different levels of body mass index (BMI) at baseline and during follow-up among black and white patients with type 2 diabetes mellitus.

Wenhui Zhao et al. Circulation. 2014;130:2143-2151
The **big fat** truth

More and more studies show that being overweight does not always shorten life — but some public-health researchers would rather not talk about them.

**BY VIRGINIA HUGHES**
Signs and Symptoms of Disease

- Infection
- Pneumonia
  - Fever
  - Coughing
Signs and Symptoms of Disease

Etiology (?)

Pathophysiology

- Increased Adiposity/Weight Gain
- Hyperglycemia
- Dyslipidaemia
- NAFLD/NASH
Excess Weight Can Be:

- Physiological
- Risk Factor
- Disease
- Sign/Symptom of Another Disease
OBESITY IS ILL-DEFINED

Negative consequences of defining obesity as a condition of excess body weight:

- "Deviation from norm" difficult to define
- Weight is regulated by complex, yet precise biological mechanisms, like body temperature, HR, Hb, WBC etc > individual, physiologic and pathophysiologic variations
- Diagnosis based on single symptom is problematic

- Obesity defined as having a BMI > 30Kg/m2
  - Cause vs association with "illness", mortality
  - Is BMI 30 a biological "point of no return?"
  - Cosmetic vs medical issue

>>> Prone to stigma/discrimination

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Could the following conditions/diseases be resolved by just lifestyle changes?

% of YES

- Severe Obesity (BMI>35): 30%
- T2DM: 15%
- T1DM: 5%
- Cancer: 5%
- Osteoarthritis: 5%

Tackling Obesity Stigma

- Explain Gap between Science and misconceptions that fuel stigma

- Educate HCPs and the Public about mechanisms of weight regulation

- Define Clinical Obesity Distinct from an Overweight Issue