

Addressing the stigma faced by people living with obesity

Diabetes Complications Research Centre (UCD DCRC)
UCD School of Medicine; Conway Institute

SUMMARY

Obesity as a disease affects people's health, wellbeing and longevity. Over the past 30 years, we have seen major advances in our understanding of its biological and societal drivers. Researchers at the UCD Diabetes Complications Research Centre have been at the forefront of this, generating high-quality scientific findings on the causes, consequences and treatment of obesity.

These findings have been communicated to medical practitioners, government policymakers, patients, and the wider public. A major impact of the work has been to help reduce the stigmatisation of the condition, a daily challenge faced by people living with obesity.

In turn, this has increased the number of patients seeking treatment for the condition. The Centre was also instrumental in resuming treatment for obesity during the COVID-19 pandemic.

RESEARCH DESCRIPTION

Work from the UCD Diabetes Complications Research Centre (DCRC) has shown that obesity is a complex disease involving certain parts of the brain - known as subcortical areas - increasing hunger and reducing feelings of fullness. Willpower originating from the cortical areas of the brain may have little or no influence on how hungry people feel or how full they feel after a meal. This biological basis of obesity is one focus area in the DCRC.

The DCRC showed how the gut talks to the brain to impact hunger and fullness. The Centre also highlighted the genetics of diseases such as obesity and type 2 diabetes. Together, this laid the foundation for the DCRC to develop and test more effective treatments, including medications and bariatric surgery. The Centre also showed how treatments can be used to put obesity and its complications such as diabetes and chronic kidney disease into remission.

However, scientific evidence alone is not enough to facilitate treatment for people living with obesity. Researchers at the DCRC found that stigma is one of the major barriers preventing people with obesity from seeking help (and healthcare professionals from providing it). This stigma presents a barrier to more effective obesity treatment.



ACADEMIC



ECONOMIC



HEALTH



SOCIAL

“Understanding that obesity is not my fault but my responsibility has given me agency to manage my chronic disease much better.”

John Kane, Dublin



Image courtesy of the [Obesity Canada Image Bank](#).

When the COVID-19 epidemic began, and obesity treatments were deprioritised, the DCRC joined forces with international colleagues to help create new obesity treatment guidelines which are now being used to restart obesity treatment programs. The research outputs of the combined efforts included high-impact scientific publications, publications in mainstream media, and a high volume of social media activity.

RESEARCH TEAM, COLLABORATORS AND FUNDING

Research team and collaborators

- Prof Carel le Roux, Principle Investigator
- Dr Werd Al-Najim, Research Manager
- Dr Neil Docherty, Co-lead
- Dr Karl Neff, Obesity Physician
- Dr Finian Fallon, Psychologist
- Ms Helen Heneghan, Bariatric Surgeon
- Prof Catherine Godson, Head of the UCD DCRC

Funding

- Innovative Medicines Initiative
- HRB US-Ireland
- Irish Research Council
- Science Foundation Ireland
- European Foundation for Study of Diabetes
- US-Ireland
- JDRF

RESEARCH IMPACT

Social impact

Through a wide range of activities across traditional and social media, researchers at the UCD DCRC have opened discussion around obesity, its causes, and the stigma faced by people living with obesity. In turn, this discussion has altered people's perceptions of obesity as a disease, and the options available to treat it.

For example, work from the DCRC has been highlighted on the RTE website, and in 2017, Professor le Roux appeared on RTE's Claire Byrne Live to discuss "Obesity – a first world problem or a serious disease?".

In 2018, the DCRC held events to promote the patient voice and to discuss obesity stigma with patients and healthcare professionals. Subsequently, members of the Centre created a website and social media platforms along the idea "its not your fault".

To date, they have attracted 647 followers on twitter, 753 followers on Instagram, and more than 200 visitors to the website per month. The phrase "it's not your fault" had an immediate impact on people living with obesity, enabling them to ask for help. This contributed to the number of referrals to obesity services at St Vincent's Healthcare Group increasing 3-fold (see health impacts below).

Economic and health impact

Obesity stigma has a significant cost to the Irish economy, because more than 1 million people living with obesity in Ireland are not currently requesting treatment. However, obesity and some of its complications such type 2 diabetes and chronic kidney disease can be put in remission by effective treatment – rather than consuming 10-15% of the entire HSE budget.

This has been shown to be dominant in health economic models, meaning that after spending €10,000 on an obesity treatment such as bariatric surgery, the HSE makes all that money back within 2-5 years. Despite these data being available, Ireland has the lowest rates of obesity treatment in the EU.

The DCRC was instrumental in convincing HIQA to undertake a formal health technology assessment for obesity treatments. This will allow more obesity treatment centres to be established in secondary and primary care.



Front page of the Irish Daily Mail following a campaign led by DCRC researchers to prevent obesity stigma from delaying obesity treatments.

As described in the previous section, referrals to obesity services at St Vincent's Healthcare Group increased 3-fold, and obesity treatments resumed in hospitals despite COVID-19. This is because the benefit of treatments for vulnerable patients was shown as a direct result of research at the DCRC. This means more than 200 patients were able to be treated who would otherwise have had their treatment postponed. Thus, the research has had an obvious health impact on those who have benefited from these services, and their families.

Academic impact

UCD DCRC members are recognised as key opinion leaders. Because of this, they co-wrote a joint international consensus statement to end the stigma of obesity that was published in *Nature Medicine* in March 2020. This was signed by the Irish Society for Clinical Nutrition and Metabolism as well as St Vincent's Private Hospital.

Members of the DCRC participated in a wide range of education efforts to address the stigma of obesity by explaining its scientific basis. This contributed to raising the profile of the Centre and securing €16 million of EU funding together with €3 million of additional exchequer funding.

DCRC members also helped arrange an international conference to understand the barriers to tackling obesity, and to propose solutions. The COVID-19 epidemic affected obesity treatment for two main reasons: because people with obesity were not recognised as a vulnerable group, and because treatments for obesity were deprioritised and postponed. The science produced by the UCD DCRC - together with several media campaigns - helped reshape the public narrative, resulting in obesity research being more prominent now than ever before and obesity treatments restarting as a priority in hospitals associated with UCD.

In addition, the DCRC contributed to a Diabetes Surgery Summit consensus statement, providing international guidelines to remove treatment bias and prioritise patients with obesity during and after the COVID-19 pandemic. The statement was published in the *Lancet Diabetes & Endocrinology* in 2020.



Professor le Roux, from the DCRC, explaining on BBC World News the latest scientific findings linking obesity with type 2 diabetes and risk of COVID-19 complications.

REFERENCES

Social impact

1. [How does the brain control what we eat?](#) RTE. Nov 13, 2018.
2. [Weight stigma common among health professionals.](#) Irish Health. Oct 10, 2018.
3. ["It's not your fault" website.](#)
4. ["It's not your fault" Twitter.](#)
5. ["It's not your fault" Instagram.](#)

Economic and health impact

6. Cohen RV *et al.* [Effect of Gastric Bypass vs Best Medical Treatment on Early-Stage Chronic Kidney Disease in Patients With Type 2 Diabetes and Obesity: A Randomized Clinical Trial.](#) *JAMA Surg.* 2020 Jun 3.
7. Batterham R, Le Roux CW, Bueter M, [Making the Case for Metabolic Surgery in Patients With Obesity and T2DM.](#) 24 June 2017.
8. Le Roux CW, Gaal LV, [Can Primary Care Physicians Take the Lead in Combating Obesity?](#) 12 Aug 2018.
9. Wilding J, Al-Najim W, James K, Gaal LV, [Enduring Obesity -Long-Term Strategies for a Chronic Disease.](#) 18 Dec 2019.
10. [SOPHIA Project Press Release](#)

Academic impact

11. Rubino F *et al.* [Joint international consensus statement for ending stigma of obesity.](#) *Nature medicine.* 2020 Mar 4:1-3.
12. Rubino F *et al.* [Bariatric and metabolic surgery during and after the COVID-19 pandemic: DSS recommendations for management of surgical candidates and postoperative patients and prioritisation of access to surgery.](#) *The Lancet Diabetes & Endocrinology.* 2020 May 7.
13. [Worldwide expertise in obesity.](#) Expertscape.
14. Locke AE *et al.*, [Genetic studies of body mass index yield new insights for obesity biology.](#) *Nature.* 2015 Feb 12;518(7538):197-206.