Shorter, fatter and poorer - genetic lottery defines pay and conditions

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Short men and overweight women earn less than those who are taller and slimmer - and it could be due to discrimination, experts say.

A British study looking at the genetics of people who are short or overweight found they earned less than their taller and slimmer colleagues and "obsession with body image" could be to blame.

Experts already know that people who are shorter and fatter earn less than others, but that was thought to be down to a poorer education and less good nutrition in childhood and early adulthood.

Now a new study from researchers at the University of Exeter provides the most robust evidence yet that simply being a shorter man or a more overweight woman leads to lower chances in life, including a lower income.

Published in the *British Medical Journal*, the study involved genetic data from almost 120,000 people aged between 40 and 70.

Researchers studied 400 genetic variants that are associated with height, and 70 associated with body mass index

They used the genetic variants, together with actual height and weight, and compared them with information on living and income provided by participants from the UK Biobank.

The results showed that shorter height led to lower levels of education, lower job status and less income, particularly in men, and higher BMI led to lower income and greater deprivation in women.

Professor Tim Frayling, from the University of Exeter Medical School, who oversaw the work, said: "This is the best available evidence to indicate that your height or weight can directly influence your earnings and other socio-economic factors throughout your life.

"This won't apply in every case. Many shorter men and overweight women are very successful, but science must now ask why we are seeing this pattern.

"Is this down to factors such as low self-esteem or depression, or is it more to do with discrimination?

"In a world where we are obsessed with body image, are employers biased? That would be bad both for the individuals involved and for society."

Prof Frayling gave examples of how a difference in height and weight might affect income.

He said: "If you could take the same woman - same intellect, same CV, same background - and send her through life a stone heavier, she would be about £1500 ($A2857.69) per year worse off.

"And if you took the same man - say a 1.78m man and make him 1.7m - and sent him through life, he would be about £1500 worse off per year."

Dr Jessica Tyrrell, lead author on the study, said: "This is the strongest evidence to date that there's something about being shorter as a man and having a higher BMI as a woman that leads to being less well off financially."

**AAP**