

Virtual food causes stress in patients affected by eating disorders

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This is the VR environment used in the experiment. Credit: Gorini et al., *Annals of General Psychiatry*

Food presented in a virtual reality (VR) environment causes the same emotional responses as real food. Researchers writing in BioMed Central's open access journal *Annals of General Psychiatry* compared the responses of people with anorexia and bulimia, and a control group, to the virtual and real-life snacks, suggesting that virtual food can be used for the evaluation and treatment of eating disorders.

Alessandra Gorini from the Istituto Auxologico Italiano, Milan, Italy, worked with an international team of researchers to compare the effects of the exposure to real food, virtual food and photographs of food in a sample of patients affected by eating disorders. She said, "Though preliminary, our data show that virtual stimuli are as effective as real ones, and more effective than static pictures, in generating emotional

responses in eating disorder patients".

The 10 anorexic, 10 bulimic and 10 control participants, all women, were initially shown a series of 6 real high-calorie foods placed on a table in front of them. Their heart rate and skin conductance, as well as their [psychological stress](#) were measured during the exposure. This process was then repeated with a slideshow of the same foods, and a VR trip into a computer-generated diner where they could interact with the virtual version of the same 6 items. The participants' level of [stress](#) was statistically identical whether in virtual reality or real exposure.

Speaking about the results, Gorini said, "Since real and virtual exposure elicit a comparable level of stress, higher than the one elicited by static pictures, we may eventually see VR being used to screen, evaluate, and treat the [emotional reactions](#) provoked by specific stimuli in patients affected by different [psychological disorders](#)".

More information: Assessment of the emotional responses produced by exposure to real food, virtual food and photographs of food in patients affected by eating disorders, Alessandra Gorini, Eric Griez, Anna Petrova and Giuseppe Riva, Annals of General Psychiatry (in press), Article available at the journal website: www.annals-general-psychiatry.com/

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