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COMMENTARIES

ADDICTION SSA

Compulsion to consume highly processed foods: addiction or 'para-addiction'

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Scientifically, it is plausible to classify at least some highly processed foods as addictive, but it depends where one chooses to set thresholds for the attributes that define addiction and the proportion of people consuming these foods who meet those thresholds. That decision relies on an analysis of the public health, clinical, legal and cultural consequences of doing so. Arguably in this case the costs outweigh the benefits, but perhaps there is a case for introducing the concept of 'para-addiction': a behaviour that has core attributes of addictive behaviours to a significant degree, but not enough to merit being labelled as an addiction.

Gearhardt & DiFeliceantonio note that the criteria that lead us to regard tobacco products as addictive can also be applied to at least some highly processed foods [1]. They note that there is convincing evidence that some highly processed foods can cause compulsive use, alter mood, reinforce behaviour and trigger strong urges. They argue that these addictive properties may be important in contributing to the high public health costs of an environment dominated by cheap, accessible and heavily marketed foods of this type.

Their review of the evidence and their reasoning is convincing. However, the attributes to which they refer that define an addictive behaviour all exist to a degree, not as absolutes [2]. This means that it is necessary to set thresholds to determine whether a given behaviour should be classified as addictive. If addiction is to be regarded as a clinical disorder, with all that this entails, for a given individual we need to consider how far the behaviour shows a clinically disordered level of compulsion, intensity of the mood effects, power of the reinforcing effects and strength and frequency of the urges. In addition, arguably a defining feature of an addiction is that it should be harmful, and in that case we need to consider the degree of harm. Without the harm component there is no cause for concern about it, no need for public health measures and no need for clinical interventions. Moreover, when it comes to classifying a product as addictive, we have to consider what proportion of people exposed to that product meet the threshold of an addictive disorder. For example, there have been case reports of addiction to carrots, but they are so rare that we would not consider carrots as addictive substances [3].

Determining where to set thresholds for defining a class of product as addictive requires a cost–benefit analysis. If we set thresholds too low we may fail to bring key stakeholders along with us and risk devaluing the concept of addiction. We may, as has happened for some physical conditions, also create a commercial market for 'treatments' that have no or limited therapeutic value. We may create a demand for public health interventions that take resources away from other areas that may be more important; and we may inadvertently and unnecessarily increase the stigma attached to the use of the product. On the other hand, if we set thresholds too high, we may deny treatment to people with what is a disorder and fail adequately to address a public health need.

It is not clear that the compulsion, mood-altering effects, reinforcing effects and urges to consume highly processed foods meet a threshold that would qualify as a disorder in a sufficiently large proportion of people for them to qualify as addictive substances. That is not to say that they are trivial, only that if one compares them to what is experienced by people who are addicted to alcohol, tobacco, gambling or opiates, for example, they appear to be lower. When it comes to harmfulness, obesity is clearly a serious harm and a case can be made that the attractiveness of highly processed foods leads to

overconsumption [4]. What is less clear is how far this is being driven by a clinically disordered level of motivation to consume these particular kinds of food rather than the fact that they are simply highly palatable and calorie-dense.

We can approach this issue in another way when thinking about where to set thresholds for addictive products. Do we envisage addiction treatment centres for these products, medications and psychological therapies directed specifically at addiction to them? Thus, we might have treatment centres for 'highly processed food consumption disorder (HPFCD)' in people who are not necessarily obese. Do we envisage developing diagnostic schedules for HPFCD and screening for it?

I suspect that for many people working the field of addictions the answer would be no; but on the other hand, the level of addictiveness of these products merits a public health response. Exposure to, and promotion of, these products takes advantage of a vulnerability of the human motivational system and the consequences for public health are disastrous.

This raises the question as to whether we should create a class of behaviours called 'para-addictions'. We recognize that they do not fully reach thresholds set for clinical disorders in the large majority of cases, but the compulsion, mood effects, reinforcing effects and urges can be strong and the harm caused at a population level is substantial.

Introducing the concept of para-addictions could have the added advantage of getting support from addiction specialists who would baulk at the idea of expanding the class of addictions to the consumption of products such as highly processed foods. In so doing, these specialists would buy into the importance of tackling the problem posed by these behaviours from a public health perspective and not simply as life-style choices.

In sum, Gearhardt & DiFeliceantonio's thought-provoking article makes a strong scientific case that highly processed food have addictive attributes to some degree. The question is whether they do so to a degree that makes it useful to consider many of the people consuming them as suffering from a clinical disorder. Arguably, although many in the addiction field would probably say 'no', there may be widespread acceptance that their consumption merits being treated as a para-addiction. This would qualify these products for a strong public health response, but perhaps not the kind of treatment programmes we see for addictive disorders.

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None.

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Robert West: Conceptualization; writing-original draft; writing-review and editing.

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