

mindovermatter

by Professor Gordon Parker

Chocolate – a mood stabiliser?

Why some people crave chocolate when depressed.

CHOCOLATE craving when depressed has recently been identified as a personality marker. Such 'hyperphagia' may more reflect a homeostatic balancing response rather than be a depressive symptom.

Commonly listed symptoms of depression include loss of appetite, weight loss, and insomnia. However, some depressed patients report converse 'atypical features' of hyperphagia and hypersomnia.

SOME HISTORY

About 50 years ago, the principal depressive disorders were the 'typical' (e.g. endogenous or melancholic depression) and 'atypical' depressions.

Only those in the former group were likely to respond to tricyclic antidepressants. Those with atypical depression were held to be more likely to respond to monoamine oxidase inhibitors (drugs with anxiolytic as well as anti-depressant properties), perhaps because of the significant representation of anxiety disorders in those with the atypical depressions.

The concept of 'atypical depression' was modified by North American researchers and introduced into the DSM classificatory system. There, a diagnosis of 'atypical depression' requires the individual, when depressed, to have a reactive mood and several other 'accessory features', including hyperphagia and hypersomnia.

Over the last few years, we have challenged the North American definition of 'atypical depression'. Analyses suggested that the primary feature is a personality style of 'emotional dysregulation' and, in particular, 'hypersensitivity to rejection'. Secondly, we have suggested that the hyperphagia and hypersomnia may be better viewed as homeostatic



responses rather than pathological symptoms.

In a recent study published in the *British Journal of Psychiatry*,¹ we reported on the extent to which depressed people crave certain foods during a depressed episode and whether such cravings are mediated by personality style.

The sample comprised 2692 Australians experiencing episodes of clinical depression. When depressed, 54% reported food cravings, with women having a distinctly higher rate than men. Ninety per cent of the 'cravers' specifically craved

In a study 90% of the 'cravers' specifically craved chocolate

chocolate. When asked why, chocolate cravers indicated that it made them feel less anxious and irritable as well as less depressed.

We then examined the personality style profile of the chocolate cravers, using our Temperament and Personality

(T&P) questionnaire. On five of the eight scales (rejection sensitivity, irritability, anxious worrying, self-criticism and self-focussed), the cravers returned higher scores, all five being lower-order facets of a higher-order personality style of 'neuroticism'.

On the remaining three personality scales (two measuring introversion versus extraversion, and one measuring perfectionism), there were no differences.

Such a finding begs consideration of the nature of 'neuroticism'. With its pejorative connotations of 'neurotic', we prefer the term 'emotional dysregulation'. It is likely that about 15% of the population have significant levels of 'emotional dysregulation', whereby their limbic cortex is more responsive to perceived threat – eliciting fear, anxiety, stress, irritability and depressive responses at low threshold.

The importance of the study's personality-specific finding is that it provides some understanding as to why chocolate may be craved in emo-

tional states, including clinical depression. Rather than such craving being viewed as a symptom, it may more represent an atavistic self-control mechanism where the individual craves a substance that will reset their emotional equilibrium.

This begs the question as to what chemical in chocolate might settle 'emotional dysregulation'? Chocolate contains more than 350 chemicals. Many of them are stimulants and unlikely candidates.

Chocolate directly activates three differing cannabinoid receptors by inhibiting the natural breakdown of anandamide. However, a large amount of chocolate would be needed to get any marijuana-like effect.

Chocolate contains the serotonin-precursor tryptophan – but a very large amount of chocolate would need to be eaten to increase brain serotonin levels.

Finally, chocolate triggers release of endorphins and opioids, and their capacity to induce states of wellbeing is

well recognised.

In the final section of the paper, we considered whether chocolate craving was a marker of the DSM-classified 'atypical depression'. The simple and parsimonious question as to whether individuals craved chocolate when depressed had an overall classification rate of 65% in differentiating those who met and those who did not meet criteria for atypical depression.

CONCLUSIONS

While the study is intriguing in and of itself, it does have some clinical application.

A significant number of depressed patients report hyperphagia and hypersomnia. They include (i) those with 'atypical depression', (ii) some with a non-melancholic disorder associated with strong self-consolatory coping mechanisms, and (iii) some young patients with bipolar disorder during the depressed phase.

For those in the first group, chocolate craving is usually indicative of a personality style of 'emotional dysregulation'. Orthodox management options for such patients include SSRI antidepressants and cognitive behavioural therapy. While chocolate may have a settling effect, it is generally transient and, if taken to excess as a manifestation of 'emotional eating' or 'comfort eating', can be counter-productive in actually prolonging mood dysphoria. Downer! ☹

The T&P questionnaire for personality assessment is available at blackdoginstitute.org.au.

Professor Parker is Scientia Professor at the University of NSW and Executive Director of the Black Dog Institute.

REFERENCE

1. Parker G, Crawford J. Chocolate craving when depressed: a personality marker. *Br J Psychiatry* 2007;191:351-52.