How Do Different Types of Food Affect Positive Mood in the Workplace?

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Introduction

The importance of studying the effect of different types of food on mood, especially at work, has become greatly needed over recent years; this is in great part due to the link between positive mood and different types of food, where eating and snacking in general, and despite the substantial evidence demonstrating the effect of mood on productivity and organisational spontaneity, little research has been dedicated to study the employees’ mood in the workplace (Bryan et al., 2012).

Methods

Since the present study drew on a quantitative research design, the best option was the use of a probability sampling technique like the simple random sampling, as this technique allows the researcher to make statistical inferences (i.e., generalisations) from the chosen sample (Berger & Zhang, 2005). Over 300 employees were randomly selected and they were asked to fill out a food survey during midday (12 pm to 1:30 pm). 246 employees out of the 300 chosen were interested in the study and filled the survey (82% response rate). Out of the 246 employees subjects, 28 participants’ responses were second that had completed the study before 12 pm or after 1:30 pm and thus did not meet to the time-frame requirement which could have biased the results. The final sample included 218 employees that didn’t have any food and had better overall mood than those who had carbs (M = 9.41, p < .001, 95% CI [4.04, 14.78]) and those who had proteins (M = 12.98, p < .001, 95% CI [7.58, 18.38]), after controlling for the effect of caffeine and fatigue. Those who had carbs reported a significantly better mood than those who had proteins (M = 3.57, p < .005, 95% CI [7.85, 10.71]).

Results

A one-way analysis of covariance (ANCOVA) was administered for this research. The independent variable, food, included four categories (no food, fat-based food, protein-based food, and fat and protein-based). The dependent variable was employees’ mood and the covariates were fatigue levels and caffeine consumption. ANCOVA was found to be significant (F (3, 212) = 15.223, p < .001). The measure of association $\eta^2 = .15$, meaning that the four different groups of food (IV) explained about 15% of the total variance in workers’ mood (DV), after adjusting for the effect of their fatigue levels and caffeine intake on mood.

Conclusion

The current study was the first to examine the possible effects of the consumption of 4 different food groups on an employee’s mood, including caffeine, (controlling for the possible effects of caffeine and fatigue on mood. The study’s results showed that consuming carbohydrates, compared to protein, can and does enhance positive mood; research on two possible explanations for this finding were given. The first was that carbs, compared to proteins, can activate the discharge of serotonin in the brain. This discharge can lead to less stress being perceived, and thus can increase positive mood. The second was that there is a strong association between positive mood and high blood glucose levels, and hence, carbohydrates which contain more glucose than protein, could affect the overall mood. Fat resulted in an overall good mood. This can be due to the fact that the ingestion of lipids leads to a boost in choleystokinin (CCK) constrictions in the body, Choleystokinin can control satiety and relaxation via the regulation of serotonin activity in the brain, and hence can increase overall mood. The most surprising result was that the “no food” group reported the best mood compared to the “carbs” group and the “protein” group. This result is inconsistent with most of the research in the literature which suggest that omitting breakfast induces metabolic stress, and therefore leads to a decrease in overall mood. Different explanations were given: breakfast might indeed be related to a better overall mood, but its effect on mood might be larger shortly after the meal has been ingested, and/or breakfast consumption may select individuals who help mood, where overall mood is low (the present study’s baseline mood could’ve been already high); and/or skipping breakfast for one time only might not have a significant effect, but the habit of always skipping meals and the gradual build-up of nutritional deficiency might then have a negative effect on mood.

In summary, the result in the best mood, followed by fat-based foods and carbo-based foods, with protein-based foods resulting in the worst reported mood. To enhance different types of organisational spontaneity, business leaders need to be aware that food and fatigue levels can result in the worst reported mood being the protein-based foods (M = 29.35).

Covariates appearing in the graph were assessed at the following values: caffeinated beverages= 76 and fatigue= 25.86

The Profile Plot gave a visual picture of the results of the study.

This graph showed that no food results in the best mood (M = 42.33), followed by fat-based foods (M = 37.17), and carb-based foods (M = 32.92), with the foods that resulted in the worst reported mood being the protein-based foods (M = 29.35).

Key References


Table 4: A comparison between the effects of every two types of food on mood.

<table>
<thead>
<tr>
<th>(I) Food</th>
<th>(J) Food</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Sig.b</th>
<th>95% Confidence Interval for Difference</th>
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<td>[-10.71, -4.46]</td>
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<td>.000</td>
<td>[10.16, 16.42]</td>
</tr>
<tr>
<td>carbs</td>
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<td>9.515</td>
<td>1.064</td>
<td>.000</td>
<td>[7.34, 11.68]</td>
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</table>

F (3, 212) = 15.223, p < .001. The mean difference is significant at the .05 level. A comparison between the effects of every two types of food on mood.