

Food Choices and the Music in a Cafeteria Changed Found by Researchers

Researchers investigated whether background music arousal influences [healthy food](#) choices.

Public attention to health has intensified worldwide in recent years. The global health economy reached \$6.3 trillion in 2023, reflecting increasing demand for [health services](#) and products. Nevertheless, translating the demand into healthier eating is limited by out-of-home consumption, where health-oriented choices often compete with energy-dense alternatives that are typically rich in sodium, saturated fat, and added sugars.

The effects of explicit health-labeling interventions aimed at promoting healthier eating in out-of-home settings have yielded mixed results. Overt health messaging often leads to psychological reactance, supporting interest in less overt approaches. Background music could be a pertinent approach as it is extrinsic to the food, can be manipulated in restaurant settings, and operates outside [focal awareness](#).



Study

In the present study, researchers investigated whether background music [arousal influences](#) healthy food choices in four studies. The first was a field experiment conducted in a school cafeteria. Healthy food selection was the primary outcome, operationalized using sales records. Before the field experiment, 120 university participants listened to 30-second music excerpts and rated perceived arousal on a nine-point scale, allowing the researchers to classify the tracks by arousal. The cafeteria experiment itself used anonymous item-level sales records rather than a defined participant sample.

Music was played during lunch and dinner on the first four weekdays of each of two consecutive weeks. The same food items were available on all observation days. Beef, processed meat, pork, and deep-fried foods were classified as unhealthy. Grilled, baked, or steamed white meat/fish and [vegetable-dominant foods](#) were classified as healthy. The remaining experiments were scenario-based.

In the second experiment, the team assessed whether the pattern observed in the earlier experiment would be generalizable to a controlled [consumption-intention task](#). Participants were randomized to a low- or high-arousal condition. They were asked to imagine entering a

restaurant with background music playing and to view the same lunch menu. Music tracks were 30-second hip-hop excerpts.

They then rated their perceived music arousal, affective valence, [menu healthiness](#), comprehension, relaxation, lightness, and intention to consume. Perceived comprehension reflected how easily participants felt they could understand the dining context. In the third experiment, participants listened to 30-second high- or low-arousal jazz excerpts while viewing an image of a restaurant dining area displaying food. Participants rated their perceived musical arousal, intention to consume, food healthiness, comprehension, passage of time, and mental effort.

In the fourth experiment, participants viewed the same lunch menu while listening to one of three 30-second auditory stimuli. [Auditory stimuli](#) included low- and high-arousal hip-hop excerpts (from experiment 2) mixed with ambient restaurant noise and ambient noise only (control). Participants then rated their perceived music arousal, comprehension, intention to consume, and the menu's healthfulness.

Results

The music pretest included 120 participants, while the cafeteria field experiment recorded 911 [food items](#) sold across eight observation days. Findings indicated a significant difference in healthy food choices between low- and high-arousal conditions. About 19% of food selections were healthy in the low-arousal condition, compared with nearly 14% in the high-arousal condition. The second experiment included 208 participants, and the lunch menu was considered healthful in both conditions.

Subjects in the low-arousal condition had significantly higher intention to consume the healthy menu and perceived comprehension than those in the high-arousal condition. There were 203 participants in the third experiment, and the [restaurant food](#) was rated as healthful in both conditions. The third experiment showed the same pattern, with low-arousal music associated with stronger intentions to consume healthy food and greater perceived comprehension.

In both the second and third experiments, perceived comprehension significantly mediated the association between background music arousal and the intention to consume healthy food. The fourth experiment involved 357 participants. Perceived arousal was significantly greater in the high-arousal condition than in the control and low-arousal conditions and did not differ significantly between the low-arousal and control conditions. The [lunch menu](#) was rated as healthful in all conditions.

Consistently, subjects in the low-arousal condition reported [higher intention](#) to consume healthy food and perceived comprehension than those in the other conditions. Consumption intention and perceived comprehension were also significantly greater in the high-arousal condition than in the control condition. Relative to the noise-only control, perceived comprehension significantly mediated the effects of both low- and high-arousal music on consumption intention.

The authors cautioned that the field experiment covered only eight observation days at one university cafeteria and did not measure [customer traffic](#), repeat patronage, or within-party or queue dependence. The scenario studies measured consumption intentions rather than observed eating behavior, and all studies were conducted in Macau or mainland China, so testing in other cultural and commercial food-service settings is needed.

Conclusion

Taken together, low-arousal background music was associated with a higher proportion of healthy food selections than high-arousal music in the cafeteria experiment and with stronger intentions to [consume healthy foods](#) in the three scenario-based experiments. In the scenario studies, perceived comprehension significantly mediated the relationship between music arousal and intention to consume healthy food. In the fourth experiment, both high- and low-arousal music increased consumption intention relative to the control, while low-arousal music showed an incremental benefit over high-arousal music. Overall, the findings suggest that low-arousal background music may provide a meaningful ambient cue for healthier food consumption.

Source:

<https://www.news-medical.net/news/20260914/Researchers-changed-the-music-in-a-cafeteria-Food-choices-shifted-too.aspx>