## LETTER TO THE EDITOR ΓΡΑΜΜΑ ΠΡΟΣ ΤΟΝ ΕΚΔΟΤΗ

ARCHIVES OF HELLENIC MEDICINE 2023, 40(5):711-712 ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2023, 40(5):711 –712 •••••

# Long-term habituation to food in Biblical times

It is well-known that habituation to food is a form of learning and memory in which repeated exposure to a stimulus (food) leads to a decrease in responding (eating). Long-term habituation to food can be observed if people consume the same food over several days and is related to lower energy intake.<sup>1</sup> It is interesting to know that habituation to food was described centuries ago in the Old Testament and is related with the daily sight, collection and consumption of manna over several years.

As we know, manna was the food that God sent to the Israelites for forty years in the wilderness, after their exodus from Egypt (circa the end of the 13th century BC) and crossing of the Red Sea, not only to save them from starvation but also to humble, test, and teach them (Exodus 16:2-15,35; Deuteronomy 8:2-3,16). This food was unknown to the Israelites and their ancestors (Exodus 16:15; Deuteronomy 8:3,16). Considering that the availability of meat from their herds was rather limited in the desert (Exodus 12:32,38 17:3; Numbers 11:22, 32:1), manna was for the Israelites: (a) the main food source to satisfy their biological (physical) hunger (Exodus 16:35; Numbers 11:6) which could be prepared in various ways (Exodus 16:23; Numbers 11:8), and (b) a "forced" food choice, provided to prevent starvation in the barren desert. About a year after the administration of the godsent manna, the Israelites grew bored of it and sought to eat meat, moaning, crying, and remembering the variety of delicious foods, such as fish, fruit and vegetables, they consumed in Egypt (Numbers 10:11,

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11:4-6). In the fortieth year of their exodus from Egypt, the Israelites became impatient, called it "unsubstantial bread" and were "disgusted" to eat it (Numbers 21:4-5).

According to the biblical texts, the day-to-day view, collection (under specific rules and commands) and consumption (in certain ways) of manna imposed upon them seem to be mainly responsible for their disgust and accompanying underestimation of it.2 The progressive loss of food pleasure, which was necessary to satisfy their psychoemotional needs, that the Israelites drew from manna in the desert is expressed by the following biblical verses (according to the Septuagint): "But now our soul is dried away; there is nothing at all except this manna before our eyes" (Numbers 11:6) and "...our soul is disgusted eating this insubstantial bread" (Numbers 21:5).2 It is obvious that the daily consumption of the same food (manna) progressively rendered it boring and disgusting. However, the Israelites were forced to continue consuming it daily in order not to starve to death, as there was no other food available in the wilderness sufficient for everyone.<sup>2</sup> This, of course, further aggravated their poor psycho-emotional state, their "dried up" souls, and consequently, their "emotional" hunger.<sup>2</sup> Because of their emotional hunger and the daily consumption of manna, the Israelites reminisced about the luscious food of Egypt and tried to regain the "desired" pleasure and indulgence through over-hunting and the consumption of quails (Numbers 11:32-33).2

We can therefore consider the long-term habituation to food as the most likely cause of the Israelites' boredom, disgust and underestimation of manna while in the desert.<sup>2</sup> The ability of manna to produce the taste of food that the Israelites wanted (Wisdom of Solomon16:20-21), as well as the various ways to prepare and consume it (Exodus 16:23; Numbers 11:8) possibly delayed the manifestation of habituation to food, thus they did get not bored in a short period of time.2

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#### References

- 1. EPSTEIN LH, CARR KA. Food reinforcement and habituation to food are processes related to initiation and cessation of eating. *Physiol Behav* 2021, 239:113512
- ΜΑΖΟΚΟΠΑΚΗΣ Η. Ἡ διατροφικὴ συμπεριφορὰ τῶν Ἰσραηλιτῶν κατὰ τὴν ὁδοιπορία τους στὴν ἔρημο ἐπὶ τῇ βάσει τῆς Πεντατεύχου – Θεολογικὴ καὶ ἰατρικὴ προσέγγιση. Διδακτορική Διατριβή. Τμήμα Θεολογίας, Θεολογική Σχολή,

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