**Regulating the Fast-Food Landscape: Canadian News Media Representation of the Healthy Menu Choices Act**

(Moghimi and Wiktorowicz, 2019)

-Availability of fast food is high, with more that 54% of Canadians eating out at least once a week

-more than half of adult Canadians overweight or obsese

**Processed and Ultra-processed Food Products: Consumption Trends in Canada from 1938 to 2011**

(Moubarac et al., 2014)

-obesity epidemic paralleled by global food system dominated by an increasing amount of processed and ultra-processed food

- ultra-processed food are more energy dense with more free sugars, sodium, saturated fats with less fibre

-typically, in large portion sizes

-rising in how much of grocery budget they take up, of how much of the energy in a diet they provide

-“ In the late 1930s, Canadian diets mostly consisted of unprocessed and minimally processed foods made into freshly pre- pared and cooked meals and dishes. This dietary pattern was not ideal. Canadian nutrition policies at that time addressed deficiencies in minerals and vitamins (such as vitamins C and D)”

-“ After 1938/1939, household food avail- ability in Canada changed significantly. The percentage of the total food expenditure for unprocessed or minimally pro- cessed foods fell rapidly and then levelled out in the 21st century. Fresh potatoes almost disappeared. In the United States, and probably in Canada, this decline has been offset by a clear and steady growth in consumption of ultra-processed products, such as frozen French fries, chips, and other packaged snacks”

-“ On the other hand, increased consumption of ultra-processed food products is the most striking change, along with the near disappearance of culinary ingredients from Canadians' grocery shopping lists.” (not the processed foods, but the ultra-processed)

-each generation spends less time in the kitchen

**Hunger Games: A Modern Battle Between Stress and Appetite**

(Smith and Azevedo, 2025)

-“ Stress, an evolutionarily adaptive mechanism, has become a pervasive challenge in modern life, significantly impacting feeding-relevant circuits that play a role in the development and pathogenesis of eating disorders (EDs).”

-“ Stress activates the hypothalamic–pituitary–adrenal (HPA) axis, disrupts specific neural circuits, and dysregulates key brain regions, including the hypothalamus, hippocampus, and lateral septum.”

-“ Although chronic stress can have negative health impacts today, its evolutionary roots highlight its importance in animal resilience and adaptation.”

-“ From occasional stress-eating to more severe eating disorders (EDs), the relationship between stress and food is complex and multifaceted.”

-“ Allostasis refers to the body's ability to achieve stability through change in response to stressors (Goldstein and McEwen 2002; McEwen 2017b). Unlike homeostasis, which maintains fixed internal conditions, allostasis involves adaptive shifts in physiological and psychological states to cope with new demands.”

-allosteric load: “Over time, this stress-induced eating behavior places a constant demand on the body's regulatory systems, contributing to metabolic dysregulation, obesity, and health issues like insulin resistance and cardiovascular disease”

-“ In response to ongoing stress, the brain can strengthen synapses, form new pathways, and enhance neural networks that help the body cope with future stressors (McEwen 2019). Whether these changes are beneficial or harmful depends on the nature, intensity, duration of the stress experienced, and the system's resilience to “wear-and-tear” highlighting the brain's capacity to both adapt and, in some cases, deteriorate in response to environmental demands”

-hypothalmaus: “s the body's primary control center for hunger, satiety, and energy expenditure, the hypothalamus integrates multiple signals, including hormonal, metabolic, and neural inputs, to maintain homeostasis (Tran et al. 2022). However, when an individual experiences stress, these processes can be dysregulated, leading to alterations in the way that hypothalamic neurons respond to interoceptive signals, thus altering feeding behavior.”

-“the hypothalamus is sexually dimorphic, meaning it exhibits structural and functional differences between males and females (Heck and Handa, 2019). These differences are crucial for regulating sex-specific behaviors and physiological processes, as well as for contributing differentially to stress responses. For instance, in female mice, acute HPA function following a stressor is markedly greater than it is in males, and this difference has largely been attributed to modulation by the gonadal hormones testosterone and estradiol (Heck and Handa, 2019).”

-“ This stress response is adaptive in the short term, mobilizing energy stores and preparing the body for “fight or flight.” However, chronic stress can disrupt this system, leading to abnormal feeding behavior.”

**Chronic stress exposure may affect the brain's response to high calorie food cues and predispose to obesogenic eating habits**

**(Tryon et al., 2013)**

- “Chronic stress, which can induce palatable “comfort” food consumption, may trigger or reinforce neural pathways leading to stronger reactions to highly rewarding foods.”

- “These results suggest that persistent stress exposure may alter the brain's response to food in ways that predispose individuals to poor eating habits which, if sustained, may increase risk for obesity.”

- “Women who had reported more chronic stress also reported being emotional eaters”

-higher chronic stress increase palatable snack food consumption

- hypothalamic-driven hunger and satiety

- “it was suggested that repeated stress-associated indulgence of comfort food, over the course of time, leads to adaptations in the brain that promote palatable food intake and hypocortisolemia”

- “Chronic stress has been linked to palatable food consumption and unhealthy eating habits. The neurophysiological basis for stress-eating is less clear.”

**Chronic stress and obesity: A new view of “comfort food”**

**(Dallman et al., 2003)**

- “Acutely (within hours), glucocorticoids (GCs) directly inhibit further activity in the hypothalamo–pituitary–adrenal axis, but the chronic actions (across days) of these steroids on brain are directly excitatory.”

- “GCs increase the salience of pleasurable or compulsive activities (ingesting sucrose, fat, and drugs, or wheel-running). This motivates ingestion of “comfort food.” (iii) GCs act systemically to increase abdominal fat depots.”

- “The long-term consequences of such output modification in chronically stressed individuals may include deleterious weight gain, abdominal obesity, type II diabetes, increased cardiovascular morbidity, and mortality… also stroke [later on]”

- “Canonical GC-feedback inhibition of subsequent adrenocorticotropin (ACTH) secretion is easily demonstrated acutely, within the first 18 h after stress. Acute feedback inhibition occurs in brain and pituitary (Fig. 1 Left), probably through nongenomic mechanisms”

- “However, under a persistent stressor, or long after administration of a single stressor of high intensity (2), there is marked diminution of the efficacy of glucocorticoid feedback inhibition of stimulated, but not basal, ACTH secretion”

- “Another key effect of GCs on the central nervous system appears to be to increase the compulsive nature of some activities.”

- “Those with disordered eating, whether it be bingeing or ingesting most of the daily calories during the night, generally characterize themselves as chronically stressed (52, 53) and are obese. The foods that are overindulged-in typically have high fat and carbohydrate caloric content and may be characterized as comfort food. GC concentrations in these patients are slightly but not markedly elevated”

- “In contrast, patients with anorexia nervosa have very high cortisol concentrations and very low insulin concentrations”