



Singapore Psychologist

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THE PSYCHOLOGY OF EATING



MOOD FOOD: WHY WE TURN TO FOOD FOR COMFORT | TABLE FOR ONE! | IMPULSIVITY AND EATING | WATCH ME EAT: THE RISE OF MUKBANGS | ORTHOREXIA NERVOSA: WHEN HEALTHY EATING BECOMES DEADLY | DEBUNKING THE MYTHS OF ANOREXIA NERVOSA | EATING MINDFULLY | THE PSYCHOLOGY OF FOOD PREPARATION | AND MANY MORE



EDITORS' NOTE

Do you eat to live or live to eat?

This question, though seemingly straightforward, carries with it a deep and often forgotten ontological perspective. People engage in eating behaviours as a matter of survival – we deliberate about what, when, and how much to eat on a daily basis. Yet in modern societies, food has become so abundant, both in quantity and variety, that the idea of eating has transcended mere nutritional values and has become embedded deeply in our culture, society, and psychology. In Singapore, the intricacies of our food have generated numerous fusion dishes, a buzzing hawker culture, and the occasional squabble over the authenticity and origin of our food.

You are what you eat.

The type of food we put into our body directly affects our physiology. Healthy food begets a healthy body and a healthy body tends to prefer healthy food. Yet, this quote also speaks volumes about the influence of food on our self-identity. We pride ourselves on having a healthy lifestyle by the food we consciously choose. We never fail to have an abundance of food whenever we socialise and party. Oftentimes, we turn to food for comfort. Amongst us are also those who regard themselves as having impeccable taste and knowledge of what they eat, proudly identifying as 'foodie'.

The act of eating is also complex as it involves an interplay between our physiology and our psychology. Certain maladaptive eating behaviours can impair our physical (e.g., obesity, malnutrition) and mental health (e.g., anorexia, bulimia, and binge-eating). Oftentimes, these problems are a result of a myriad of psychological factors (e.g., body image) that leaves us unable to resolve the deceptively simple act of eating.

In this issue of Singapore Psychologist, we try to decipher the meaning(s) of eating, explore new trends involving food, and discuss the dangers of eating disorders.

Grab a bite, read on and get psyched!

Mok Kai Chuen
Editor-in-Chief
SPS Publicity Chair

Annelise Lai Ke Yin
Deputy Editor-in-Chief
SPS Deputy Publicity Chair

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Mok Kai Chuen | Editor-in-Chief
Annelise Lai | Deputy Editor-in-Chief
Nicole Chong | Associate Editor
Juanita Ong | Associate Editor

DESIGN

Xavierlyn Tan | Lead Designer
Andrea Ong
Alexandria Rodrigues
Jasmine Chia
Nicole Yeo

CONTRIBUTORS

Adrian Toh | SRP Chair
Amerie Baeg
Andrea Ong
Anutra Guru
Carrie Lee
Cassandra Neo
Charmaine Leong
Charmaine Wah
Cindy Chan
Cissy Li
Dr Elsa Tan
Gan Kai Qi
Henny Tan
Jessy Yong
Laura Jonathan
Nicola Cann
Pansy Pan
Dr Soon Siew Peng
Dr Sunita Rai

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Dr Denise Dillon, SPS Research Chair

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**Singapore
Psychological
Society**
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PRESIDENT'S ADDRESS

Singapore – A food nation.

Food and eating have become synonymous with our identity as true-blue Singaporeans. When Phase 2 restrictions were relaxed, restaurants were seen to be filled with diners again, with some even reporting full capacity. Why is this so?

Many families use food as a conversation starter – “have you eaten” and “jiak ba buay” amongst other phrases have a familiar ring, as they bring family together. For others, food has become a lifestyle choice – bridging the gap between physical and mental health. For others, food and eating have successfully woven their way into our social strata, determining where we place on the 'social leaderboard'. Food and social media now walk together hand in hand – “Let me take a photo first!” (while everyone waits impatiently). Influencers showcase the best food available, which has inevitably led to a whole new elevation of food presentation and styling that go way beyond mere flavour.

Food, once serving the fundamental need for survival has now become woven into a highly complex psychological process involving health, wellbeing, social desirability, approval, and attention amongst many other concepts.

In our role as psychologists, food and eating can play important roles in both our rapport building and intervention processes for a variety of mental health issues. It is also an important and interesting topic to understand and explore. Given the importance placed on eating in Singapore, Singapore Psychological Society invites readers to dive into a deeper understanding of this concept as we engage both practitioners and the general public on what eating means to them and what trends are out there, as well as potential psychological costs of disordered eating habits.

May we take on a curious eye as we explore the world of food and address the complex psychological underpinnings of eating together as One Psych Community.



A handwritten signature in black ink, consisting of several loops and a long horizontal stroke.

Dr. Cherie Chan
President, SPS

The Dangers of Under-eating and Being Underweight

Annelise Lai

It is a trend now to jump onto the weight loss and fitness bandwagon. Activewear is a common sight and gym memberships are like badges of honour. It is almost strange if one is not concerned about one's body image or weight. There are even subtle negative connotations associated with the idea of being content with one's body image, such as being lazy or not health-conscious enough.

However, the constant pursuit of the perfect body or weight comes at a high cost and is especially risky for those with an eating problem (e.g. Anorexia and Bulimia Nervosa). Losing weight is appropriate if one is medically overweight and follows modest weight loss goals with flexible eating guidelines. It is advisable to lose not more than 0.5 to 1 kg a week.

Many trendy diets with restrictive dietary rules can be detrimental to one's physical and mental health. By sustaining a markedly under-eating diet or a low body weight, one can suffer from dangerous psychological, social, and physical effects.





Psychological

Firstly, under-eating can affect our thinking, feelings, and behaviours. Our brain consumes roughly 300 calories daily just to think. With a restrictive diet, you may notice a decline in your concentration, reaction time, and decision-making ability. Having a restrictive diet also increases the frequency of thoughts about food. This interferes with the ability to focus on other things and further exacerbates the symptoms of low mood and irritability.

Another common feeling experienced is “feeling fat” despite a low body weight, which is sometimes associated with tightness in clothes or feeling bloated. Behavioural changes, such as a heightened obsession with food, a rigid routine or a ritualized eating habit, are developed over time in order for one to cope. As time passes, people become susceptible to thinking that being “obsessed” with food restriction and having excessive fear about weight gain is their new identity, whereas their true personality is being masked by the effects of under-eating or being underweight.



Social

The above-mentioned psychological effects also have a profound effect on social functioning. The heightened concerns about body image and weight exaggerate the need for routine and predictability. As a result, many have difficulties being spontaneous, become fearful to eat in public, and tend to withdraw from social events and interactions to maintain their inflexible lifestyle. The loss of sexual desire due to hormonal change and low mood also reinforces their socially-withdrawn behaviours. Prolonged social withdrawal could aggravate low mood by limiting social support and pleasurable activities, which further reinforces this vicious cycle.

Physical

Lastly, under-eating and being underweight have a significant impact on one's physical health with co-occurring medical complications such as electrolyte abnormalities, respiratory failure, and cardiovascular and kidney problems (Mehler & Brown, 2015). The physical effects significantly elevate mortality rate among individuals with an eating disorder. By losing

fat and muscles from a restrictive diet, many experience weakness when walking up stairs or trying to stand up from a sitting/squatting position. The body's natural temperature regulation is altered, resulting in a lower body temperature and lower tolerance for cold. Heart circulation is also affected by the deterioration of the heart muscle. Many experience a drop in heart rate and blood pressure. There is a heightened risk of arrhythmias (i.e. heart beat irregularities) and sudden death amongst these individuals.

Another harmful effect is the deterioration of one's bone strength. This amplifies the risk of osteoporosis and bone fractures, even from minor accidents. Likewise, under-eating and being underweight have profound effects on one's hormonal functions and fertility. Some individuals experience a loss of interest in sex, a decline in sexual responsiveness, and amenorrhea (i.e., the absence of menstruation).

There may also be hair loss, dry skin (e.g., skin peeling on the palms and lips) and an orange tinge on the skin. In some cases, a downy hair called lanugo may start to grow on the body, especially on the face, abdomen, back, and arms.

Some of the effects above are direct effects of sustained under-eating, despite a healthy body weight. The exact physical effects, though, vary depending upon the extent and nature of one's dietary deprivation.



Conclusion

It is certainly concerning and frustrating when you see someone engaging in a restrictive diet while damaging their health. We are often tempted to confront them: "Why can't you just eat?!" However, this line of questioning not only trivialises their suffering, but further intensifies their sense of isolation and self-hatred. This results in defensive and secretive behaviours, which are very common amongst individuals with an eating disorder (ED).

Battling an eating problem is tough. The fear of weight gain and food intake that consumes one often surpasses the dangerous effects that dieting does to one's physical and mental health. Many people often do not expect all the detrimental effects when they embark on their restrictive weight loss journey. When all of these scary effects emerge, they are often already entrenched in a self-maintaining vicious cycle. This is the reason why ED is difficult to treat and requires collective professional help from doctors, psychologists, and dieticians.

Having said that, it is never too late to visit an ED professional to understand more about your condition if you observe signs like excessive weight concern coupled with a drastic weight lost or other disordered eating patterns, (e.g. recurrent binge eating with purging and laxative use to "get rid" of food consumed). While the effects of having too low a body weight are dangerous and can cause long-term damage to your body, most of these effects would eventually go away if you regain a low but healthy body weight, with or without professional help.



**If more of us
valued food
and cheer and
song above
hoarded gold,
it would be a
merrier world.**

J.R.R. Tolkien



Mood Foods: Why we turn to food for comfort

Andrea Ong

While studying overseas, my peers and I constantly turned to food to cure our homesickness. Most of us gravitated towards Asian cuisines; possibly to satiate our food cravings and desire for home. Shops that prided themselves on chicken rice, quality Teochew porridge or a classic plain *prata* saw us returning frequently. However, a handful of us instead found ourselves surrounded by McDonald's nuggets or tubs of ice cream that were on sale.

The layman would refer to these food items as 'comfort foods' because they lift our spirits; either through our brain's natural response to certain nutritional content in the food itself, or through the association between particular foods and previous positive experiences. In the example used above, our comfort foods acted as 'social surrogates' – they replaced the desire for physical interactions in a symbolic fashion (Gabriel et al., 2016; Troisi & Wright, 2016). This is not to say that socialising face-to-face became redundant, but rather that when the option was inaccessible, the social value attached to our inanimate meals allowed comfort foods to act as a unique alternative to induce a feeling of connection with home in a foreign environment.



Simply put, comfort foods have become a more subtle alternative to self-soothe from psychological stressors. Similar to how parents may pat their infant's back to lull them to sleep, comfort foods can help regulate our feelings when we are emotionally overwhelmed or are experiencing spurts of sadness. Especially in times of stress or negative affect, the tendency to experience instant (though temporal) gratification by consuming comfort foods is greater.

However, some researchers claim that these supposed elevations in mood derived from comfort foods lack sufficiently robust empirical findings (Spence, 2017). They cite the placebo effect as the reason behind why people may be falsely led to believe that comfort foods exist. This theory suggests that it is the belief in itself that chicken soup – an example of someone's comfort food – would induce subsequent positive emotions, and not the food itself. Is the idea of comfort food then, merely a myth?

While the aforementioned claim could be true under certain circumstances, the term 'comfort food' has been in the American vernacular since the 1970s and is used to describe foods that satisfy both physical and emotional needs (Troisi & Wright, 2016). Since then, the underpinnings of mood elevations from comfort foods have actually been widely studied – and even more so in the 21st century. Biological explanations suggest that foods high in sugar and starch content do indeed indirectly increase serotonin levels. Known as the 'mood stabiliser' chemical in the brain, this increase in serotonin consequently results in an improved mood. Interestingly, the same reward and pleasure centres associated with addiction also become active when such comfort foods are consumed (Christensen, 1997).

At the same time, although several individuals hold on to the belief that comfort foods are simply unhealthy in nature (such as donuts, chocolate chip cookies, cheesy pizza etc.), a large pool of literature seems to suggest otherwise as well. Scholars propose that comfort foods go beyond the purely physiological aspect and that there is instead something intrinsically cultural, familial and meaningful behind what we know to be comfort foods (Wansink et al., 2003; Troisi & Wright, 2016). This, in part, seems to be attested to by my own personal experiences. At the social gatherings I attended overseas, I always found myself (along with other Singaporeans) gravitating towards foods like *bak kut teh*, *char kway teow* or fried rice. Meanwhile, Australians would flock towards lamingtons and beef pies and Americans would gather around cheeseburgers, fries and mashed potatoes. As stereotypical as it seems, I do find it hard to deny that cultural nodes exist and are embedded in every subconscious food choice.



Apart from cultural differences, several studies observed patterns in the preferences of comfort food between different groups of people. They found that males gravitated towards warm and hearty meals (think steaks and stews), while females preferred more snack-related foods (chocolate and ice cream). Meanwhile, when different age groups were compared, those in the younger demographic also favoured snack-related comfort foods, as compared to those over the age of 55 (Wansink et al., 2003). Antecedents to consumption of comfort foods differed as well. Prior to comfort food consumption, men were motivated by positive emotions, whereas women were triggered by negative emotions (Dune et al., 2005). Unsurprisingly, though such negative emotions would be alleviated after consuming their comfort food, guilt was a common consequential emotion.

One particularly memorable study exploring the social construction of comfort foods assigned about 260 sociology undergraduate students to bring a food object that elicited pleasant feelings in them or provided them comfort (Locher et al., 2005). When their rationales for what they brought were thematically analysed, the four attributes of what made a comfort food, well, *comforting* was either nostalgia, indulgence, convenience or physically comforting foods (i.e. easily eaten and digested foods). However, despite these different rationales, the single, underlying common trait that all the comfort foods in the study had was this: they evoked a sense of familiarity.

In essence, the above indicates that it is classical conditioning that renders a particular food comforting – considerably more so than the placebo effect. Classical conditioning works by training the brain to associate a certain response with an unrelated stimulus. Understanding the mechanism of comfort foods from this perspective, one's brain would associate the example above of chicken soup with feelings of warmth and joy because of the previous positive social experiences surrounding it; such as the process of making it or consuming it with close friends or family. As a result, it is the associated memories that invoke comfort.

The consumption of what the world has come to fondly call 'comfort food' is thus more than purely satisfying hunger. Comfort food also satisfies the cultural, emotional and symbolic meaning inherently found within.



The Melting Pot: The Roles of Food in Multicultural Societies

Juanita Ong

What is a typical brunch to you?

To many, this might conjure up images of savory egg dishes done in different styles (think: scrambled, poached, fried, baked etc.) with a side of toast and fresh greens. Or perhaps for those with a sweet tooth, stacks of pancakes or waffles drizzled in maple syrup come to mind. The quintessential brunch appears, then, to be well encapsulated by the ambience of bustling, aesthetically appealing cafés serving up plates of such food.

Yet, to others, a parallel experience hits closer to home. In place of eggs done in an assortment of styles, images of colourful plastic bags filled with an array of fried food and kueh (think: *goreng pisang*, *vadai*, *you char kuay*, *ang ku kueh*) are conjured. Or perhaps for heartier eaters, a heaping serving of instantaneously fried economic bee-hoon alongside sunny side-up eggs, *otak* and maybe luncheon meat comes to mind. This atmosphere is also no less teeming with life, as long queues are seen snaking around hawker center complexes to vie for food items from popular stalls – maybe ‘Chope’ apps for table reservations and tissue packets strategically placed on tables run in the same vein after all.

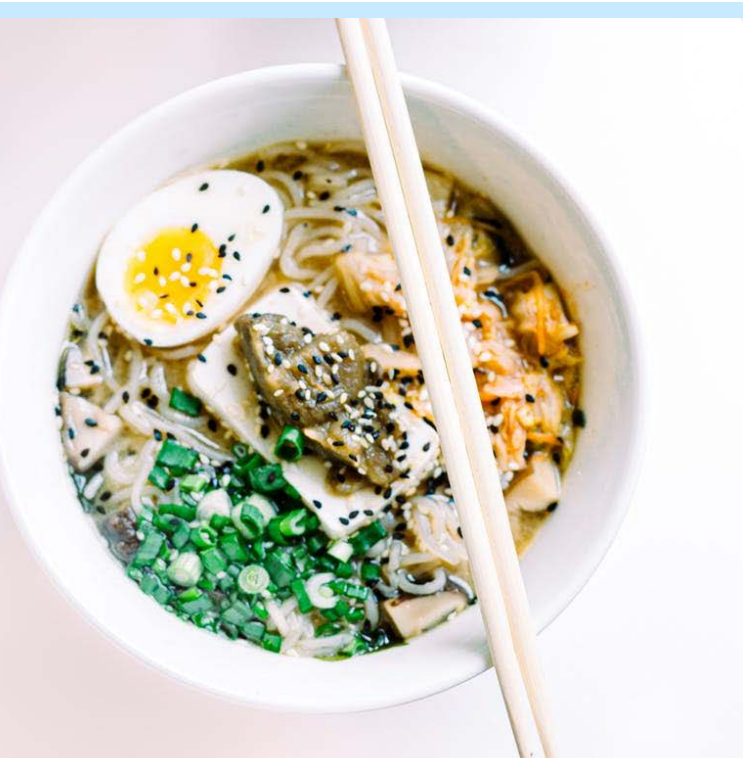
Beyond the simple conclusion that different people simply like different kinds of cuisines, these contrasting conceptions behind the nomenclature of the single word ‘brunch’ actually point to something interesting about our human psyche: prototypes.



Prototypical?

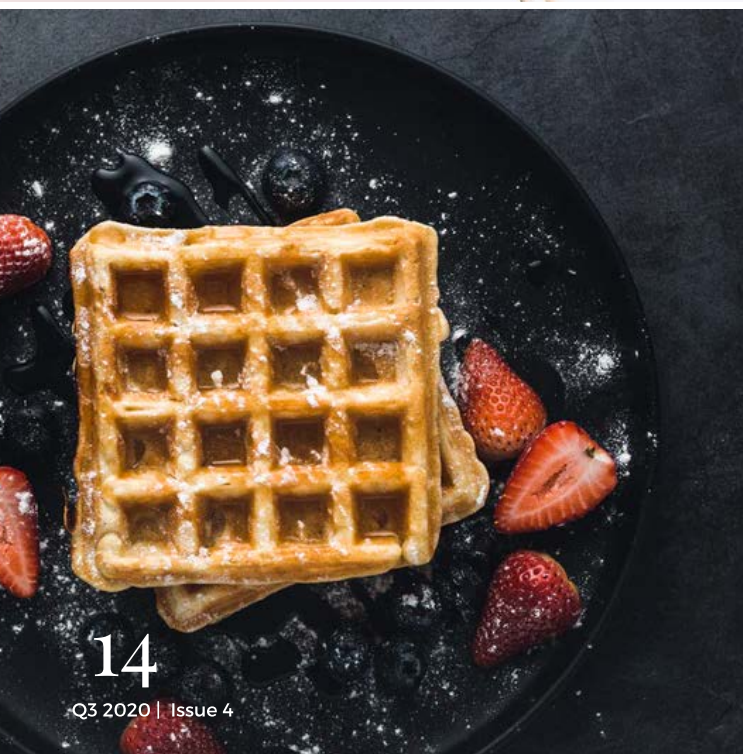
Defined as, “an item that typifies members in a category and is used to represent that category,” prototypes are hence a way in which we organize the information we derive from the world around us. They allow us to easily represent a category in a single mental image. In other words, a prototype can also be thought of as the most ‘average’ of all patterns in any given category (Reed, 2013).

This is consequently telling of how the way in which we organize the world around us is dependent on the sum of our own personal experiences. The fact that different prototypes arise from the same category alludes to the notion that the seemingly mundane things we encounter in our lives accumulate to influence the way we process the world. What we know, then, does indeed appear to affect how we think.



What's Food Got to Do with It?

The above recognition is especially important in Singapore where people of different ethnicities and cultures mingle and interact with one another. As a multi-racial and multi-cultural society, there are bound to be dissimilarities in our upbringings and family nuclei. Food, whilst a form of sustenance, is also a key aspect in these divergent experiences we each share.



While centuries may have passed since our forefathers made Singapore their home, the cuisines they introduced from different parts of the globe clearly live on. In such a society founded on scores of diverse migrant populations, it is no surprise that our different ethnic identities are said to be preserved through cooking and eating practices (Reddy & van Dam, 2020; D'Sylva & Beagan, 2011).

As a result, when we engage in practices unique to our cultures, we serve to conceptualise our experiences and what it means to be a part of that ethnic group. These could include nondescript, everyday acts that we do not pay much attention to, such as eating with chopsticks or with our hands, or even family recipes passed down through generations that detail particular cooking methodologies or the use of a certain spice. It is only through closer inspection of the various practices in particular groups that we begin to partake in the mental exercises of categorization, forming prototypes and even self-identification.



Is There No 'We' in Food?

However, there is much more to food than being a convenient example used to illustrate how our minds work. As briefly mentioned above, food is also a means through which we form and reinforce facets of our socio-cultural identities.

In psychology, Social Identity Theory posits that individuals wish to maintain or enhance their self-esteem. This involves having a positive social identity. Under the theory, it is proposed that individuals will consequently undergo social categorisation, social identification, and social comparison in order to achieve this aforementioned aim.

Classifying other people into distinct groups based on defining features firstly allows the individual to adopt the identity of a previously categorised group, should he or she wish to. Secondly, it allows for favourable social comparisons to be made between the group the individual chose to identify with (and found belonging in) and other groups which the individual did not identify with. A positive social identity is said to arise due to these social comparisons, with the basis of these comparisons resting on the different characterisations given to each group during prior classifications. Taken together, this could explain why we identify more with our particular ethnic group when we partake in distinctive food practices with our cuisine of choice being coloured by our ethnic identities, since it enables us to foster a sense of belonging.



Although the above deduction may be an apparent observation, the finding that the way in which we choose food is heavily influenced by numerous aspects of our socio-cultural contexts is also worth noting. A study by Roudsari et al. (2017) has shown that food choice is largely influenced by psychological, social and cultural determinants that were categorised into five main themes: (i) cultural contexts and patterns, (ii) social structure and norms, (iii) information resources and media, (iv) family structure, and (v) transition in nutrition.

Additionally, this has been corroborated by other literature that has found that our dietary choices have a tendency to converge with those of our close social connections, in part due to our desire to conform to the behaviour of others. When we conform, we do so by adhering to norms of appropriate eating that are not only set by the people around us, but also by shared cultural expectations and environmental cues (Higgs & Thomas, 2015).

All this is not to say that our individual food preferences do not matter, but rather that there is something to be said for the role that context can play in influencing our choices. The implication of this is that when we have a host of group identities that range from our ethnic backgrounds and families to our various social circles of friends, the choices we make when consuming food in social situations depend on the group we are with and the identity we assume with regard to said groups.


This is also not to say that having differing identities in socio-cultural contexts necessitates conflicting food preferences. Instead, it could signal cross-cultural appreciation and adaptation. Returning to the backdrop of Singapore, research conducted here has indicated that cross-cultural food practices are in fact readily adopted in the everyday lives of Singaporeans (sometimes even for personal rather than social reasons), to the point where the boundaries between different cultural cuisines were blurred. As a result, this highlights how there is a (re)construction and (re)creation of culture owing to the different social contexts and groups individuals are exposed to in multicultural societies (Reddy & van Dam, 2020). By extension, this again suggests the malleability of the way in which we construe the world around us and our place in it.



We The Citizens

In a world that is becoming increasingly interconnected, a melting pot may no longer encompass a particular geographical region but instead span both a localised and global sphere. As such, while we may each have our own ties that bind and identities that we adhere to, the interaction between a plethora of varied identities may well result in an equally unique, hybrid conception. This is not something to be shunned for fear of a loss of culture, but rather conveys the sentiment that possessing an intersecting medley of identities will not change who we are, though it might affect what we will become.

**Who knows? Perhaps eggs
Benedict on prata might just
become the next big thing.**



When Food becomes your Frenemy: Emotional Eating and Coping

Laura Jonathan

Do you sometimes eat to feel better? Do you tend to have cravings for certain foods when you are feeling upset or bored? Do you often reward yourself with food after a long or tiring day? This is also known as emotional eating – a phenomenon that many people would have experienced at one point in their lives. When emotional eating becomes a habit and when food becomes the primary coping mechanism to deal with stress and negative emotions, it can affect both our physical and mental wellbeing. Fortunately, there are healthier ways to address the underlying emotions behind this habit, avoid triggers, and find alternative methods to cope.

What is emotional eating?

Emotional eating occurs when food is used to soothe or suppress emotions such as anger, boredom, stress or loneliness, or as a form of reward (Mayo Clinic, 2014). Usually, the most common foods are junk food and sweets. You might reach for a bag of chips when you feel upset, order fast food when you feel lonely, or indulge in a pint of ice-cream when you feel stressed. While emotional eating may provide temporary comfort, it does not resolve the underlying emotional issue and may even bring about feelings of guilt and shame for overeating. Instinctively reaching for food at the first sign of emotional distress also perpetuates the unhelpful association between food and comfort. Research suggests that women are more likely to use food as a form of coping compared to men (Wardle et al., 2016).

What causes emotional eating?

The Biological Response. When a person experiences a negative emotion, it activates the body's fight or flight response which releases cortisol (stress hormone). Elevated levels of cortisol can lead to an increased appetite where the body feels that it requires additional fuel to cope with the stressor (Wardle et al., 2016). Eating foods that are rich in fat, salt and sugars triggers dopamine (feel-good hormone) and leads to feelings of pleasure, motivation and comfort.

Availability. In Singapore, food is one of the most accessible and readily available resources because of a multitude of delivery options, nearby 7-11, and supermarkets. Many residential areas often have coffee shops and eateries nearby. It is easy to stock up the pantry at home with snacks and junk food for times when you need them.

Perpetuating Cycle of Emotional Eating. When feeling stressed or upset, attempts may be made to fill the emotional void with food for that 'fullness'. The person would start to crave for a certain type of food and may overeat. As a result, there is a continued feeling of the original negative emotion, an increased association between food and comfort, and additional feelings of guilt and shame from overeating. He or she continues to use eating to cope with emotions without learning helpful ways of dealing with them.

What emotions are getting suppressed?

While it may seem like emotional eating makes you feel powerless when it comes to food, you are, in fact, overpowered by your emotions (White, 2013). When you feel unable to manage your unpleasant feelings, food is often used to suppress them. It is crucial to identify and acknowledge the underlying emotions so that you can address them better:

Stress. In our chaotic, fast-paced world, stress is an inevitable part of daily life. To cope, reaching for food high in sugar, salt and fat can provide that burst of energy, pleasure and emotional relief. This makes it very tempting to engage in emotional eating when you are faced with stress.

Unpleasant Emotions. When there are uncomfortable emotions, including anger, fear, sadness, anxiety, loneliness, resentment, and shame, eating may seem like a way to temporarily push aside these emotions while filling up on food. When we numb ourselves with food, it can seem like the difficult emotions are relieved for that moment.

Boredom. Ever noticed that you tend to open the fridge more often when you are feeling bored? Feeling bored can make you feel unfulfilled and empty, and food can be a quick way to fill that void.

How to overcome emotional eating?

There are healthier ways to regulate your emotions, avoid triggers, and gain control over your cravings (Gould, 2011).

1. Acknowledge emotional eating. Recognising that you may have formed an unhealthy association between food and emotional comfort is a necessary first step. When you begin to have cravings, consider if you are really hungry or if you are responding to something unpleasant.

2. Stay present with your negative emotions. Accepting your emotions, both the good and the bad, is important. When you are mindful of the difficult situation, your feelings are addressed and your negative thoughts may become more balanced. Once the negative thoughts subside, solutions may then more likely come to mind.

3. Use relaxation techniques. Finding comfort outside of food can include reading a book, taking a walk, appreciating nature and exercising. Try to incorporate a consistent self-care regime at least 30 minutes every day to relax, de-stress, and unwind. Taking a break from your day regularly allows your emotional tank to be filled up again with gratitude and pleasant feelings.

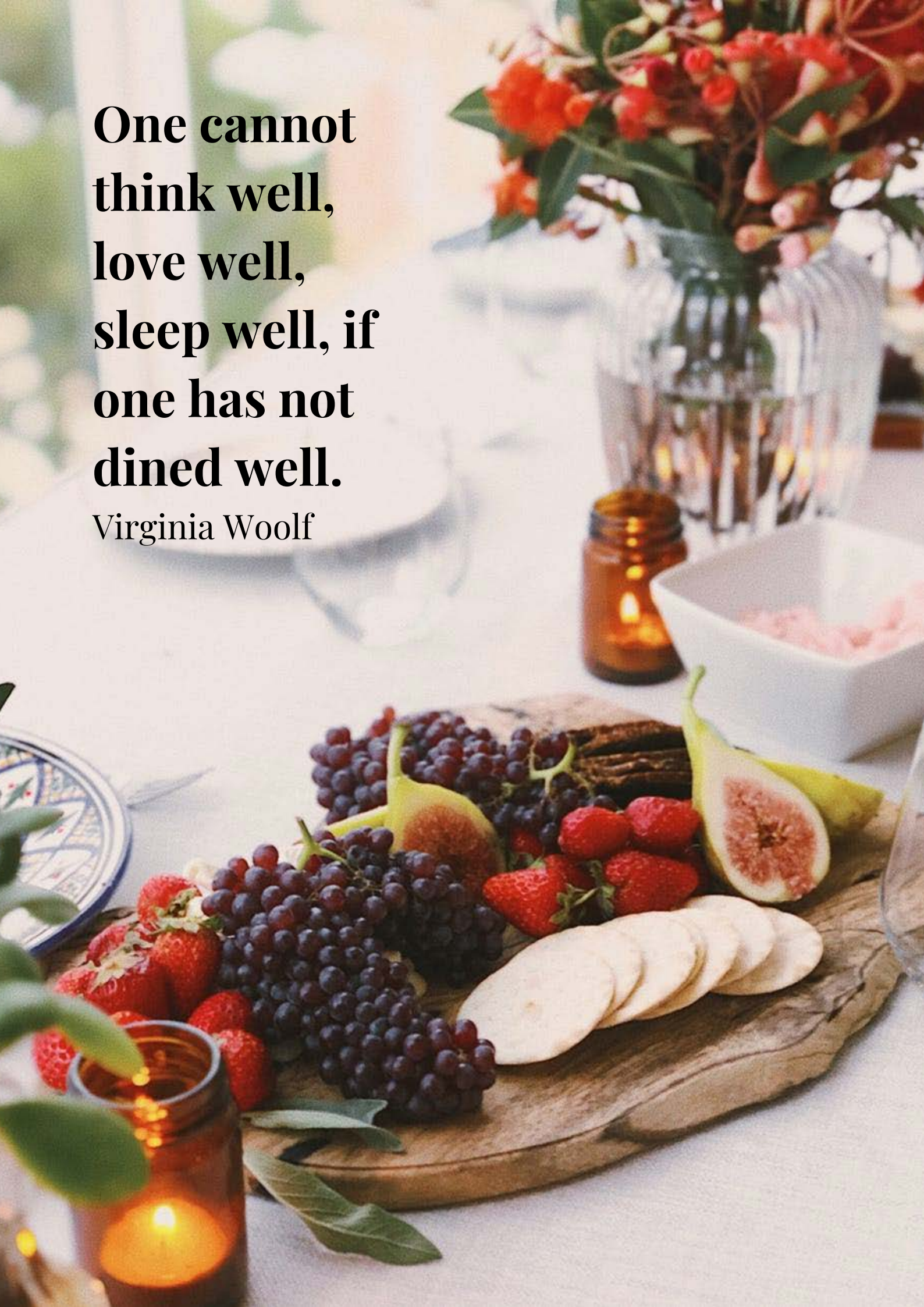
4. Practise mindful eating. It is common to have the TV on while having your meal. This prevents you from staying present while eating and enjoying your food. Eating mindfully helps you to experience the full extent and complexity of the tastes of your food. It also helps you to gauge more accurately when satiety has been reached so overeating can be avoided. Keeping a food diary and having a balanced diet can also help to meet your nutritional needs and make it less likely for you to reach out for more to fill up the emotional void.

5. Seek social support. Spend time with your family and friends regularly to stay connected. This helps to relieve stress and bring about more pleasant feelings.

6. Speak to a therapist. It is normal to feel distressed and overwhelmed by emotional eating and unpleasant emotions. Speaking to a professional can be helpful as he/she works alongside you to break unhelpful patterns and to learn emotional regulation techniques.

**One cannot
think well,
love well,
sleep well, if
one has not
dined well.**

Virginia Woolf



Let's face it, fat or weight stigma seems to be one of the most socially acceptable forms of bias. We give overweight individuals unsolicited advice to eat less and exercise more, all under the guise of concern for their health. From the family member making disparaging comments about one's weight to the medical professional preferring not to treat or even touch those who are overweight (Bombak et al., 2016; Lee & Pausé, 2016), weight stigma is extremely prevalent in our society.

We believe that obesity is a matter of personal responsibility, or that overweight people are fat simply because they have little self-control. As a result, we assume that our bias against them is acceptable and even necessary in order to push them to take action to reduce their weight.

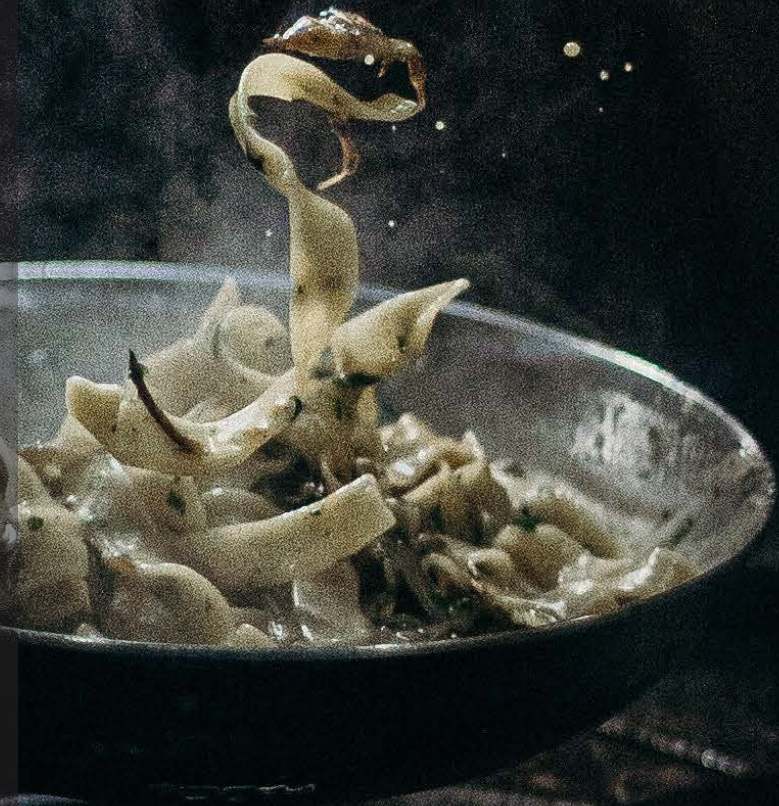
However, weight stigma actually harms more than it helps—if it even helps at all.

In reality, obesity is not just the result of a simple imbalance between one's energy intake and expenditure. For example, studies have found that genetic differences can account for 47-80% of the variation in BMI (Albuquerque et al., 2017).

Sociocultural factors are another major reason behind obesity. Unhealthy food laden with fats and sugar are cheaper per calorie compared to meat, vegetables and fruits (Drewnowski & Darmon, 2005) and can be perceived as the most affordable option for those from low socioeconomic households. These causes of obesity are not completely up to our own individual choices, and so neither is our weight. Thus, when weight stigma puts complete responsibility on the individual, it becomes an ineffective incentive to lose weight.

THE BURDEN OF WEIGHT STIGMA

Gan Kai Qi





Ironically, weight stigma actually has the paradoxical effect of increasing one's intake of calories, and thus one's weight (Major et al., 2014; Schvey et al., 2011; Tomiyama et al., 2018). When faced with weight stigma, individuals experience a threat to their social identity, fearing that they will be devalued and negatively stereotyped because of their weight.

This lowers their self-efficacy, such that they feel less capable in controlling their eating habits and food intake (Major, Tomiyama, & Hunger, 2018; Seacat & Mickelson, 2009; Tomiyama et al., 2018). In addition, the experience of weight stigma is also stressful. For instance, derogatory comments about one's weight elicit negative emotions, making individuals feel bad about themselves, and the production of cortisol also increases hunger (Major et al., 2015; Tomiyama, 2014). With weight stigma as a stressor, it is no surprise that these individuals turn to comfort eating of high sugar and high fat food, which is a commonly used coping strategy in times of stress (Adam & Epel, 2007; Tomiyama, 2014). These two interrelated pathways only serve to increase calorie intake, contributing towards weight gain, rather than weight loss.

Secondly, stigma around weight also tends to result in dysfunctional eating habits. Binge eating is one of the most common dysfunctional eating behaviours that is consistently related to weight stigma, along with other behaviours such as the purging of food that is seen in bulimia (Papadopoulos & Brennan, 2015; Vartanian & Porter, 2016). Overweight individuals also engage in other eating habits such as restrictive eating, even if this is rarely considered by the layperson, or even a medical professional.

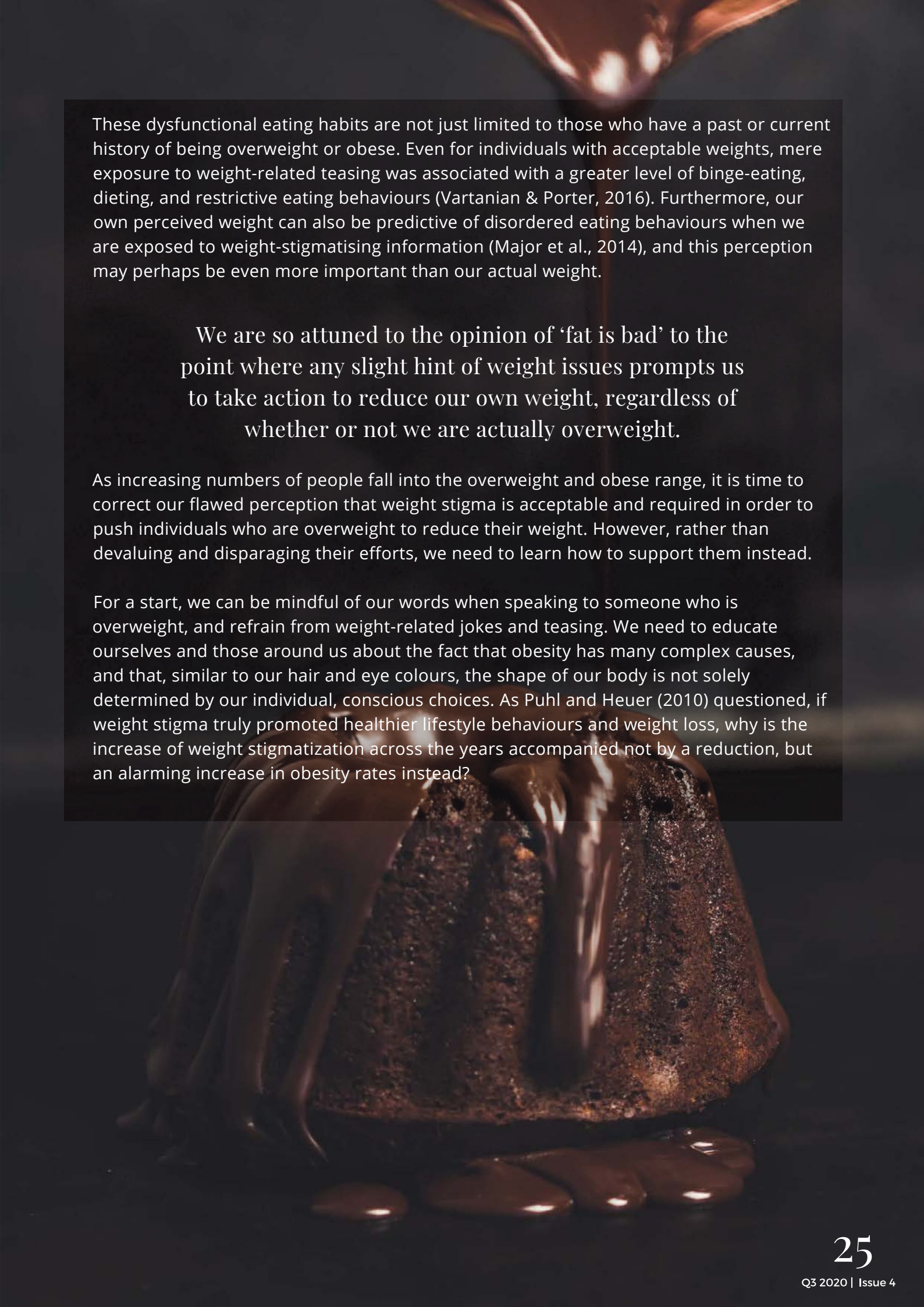
However, such restrictive eating habits, or the limiting of one's food intake, eventually end up being detrimental to their weight as counter-regulatory eating may occur (Lowe et al., 2001). Counter-regulatory eating refers to the phenomenon where restrictive eaters actually ate more when exposed to disinhibiting stimuli, such as emotional distress, or even being forced to eat calorie dense foods such as a milkshake. After all, if your diet has already been 'blown' by drinking a milkshake, what harm is there in eating more? As a result, the occurrence of counter-regulatory eating does not help with weight reduction, and may even result in an overall increased intake of food.



Worryingly, such dysfunctional eating habits can eventually escalate into full-blown eating disorders. In reference to the previous example, eating disorders such as anorexia nervosa can occur even when one is successful in sustained weight reduction through restrictive eating.

In particular, a substantial number of adolescents with eating disorders characterised by excessive weight loss were found to have had a history of being overweight or obese (Lebow et al., 2015). More generally, overweight individuals have a greater prevalence of eating disorders as compared to the general population (Britz et al., 2000), while greater weight discrepancies between one's highest and lowest weight corresponded to more severe eating disorders (Berner et al., 2013).





These dysfunctional eating habits are not just limited to those who have a past or current history of being overweight or obese. Even for individuals with acceptable weights, mere exposure to weight-related teasing was associated with a greater level of binge-eating, dieting, and restrictive eating behaviours (Vartanian & Porter, 2016). Furthermore, our own perceived weight can also be predictive of disordered eating behaviours when we are exposed to weight-stigmatising information (Major et al., 2014), and this perception may perhaps be even more important than our actual weight.

We are so attuned to the opinion of ‘fat is bad’ to the point where any slight hint of weight issues prompts us to take action to reduce our own weight, regardless of whether or not we are actually overweight.

As increasing numbers of people fall into the overweight and obese range, it is time to correct our flawed perception that weight stigma is acceptable and required in order to push individuals who are overweight to reduce their weight. However, rather than devaluing and disparaging their efforts, we need to learn how to support them instead.

For a start, we can be mindful of our words when speaking to someone who is overweight, and refrain from weight-related jokes and teasing. We need to educate ourselves and those around us about the fact that obesity has many complex causes, and that, similar to our hair and eye colours, the shape of our body is not solely determined by our individual, conscious choices. As Puhl and Heuer (2010) questioned, if weight stigma truly promoted healthier lifestyle behaviours and weight loss, why is the increase of weight stigmatization across the years accompanied not by a reduction, but an alarming increase in obesity rates instead?

Bariatric Surgery and Psychology

Adrian Toh

Obesity and Psychological Health

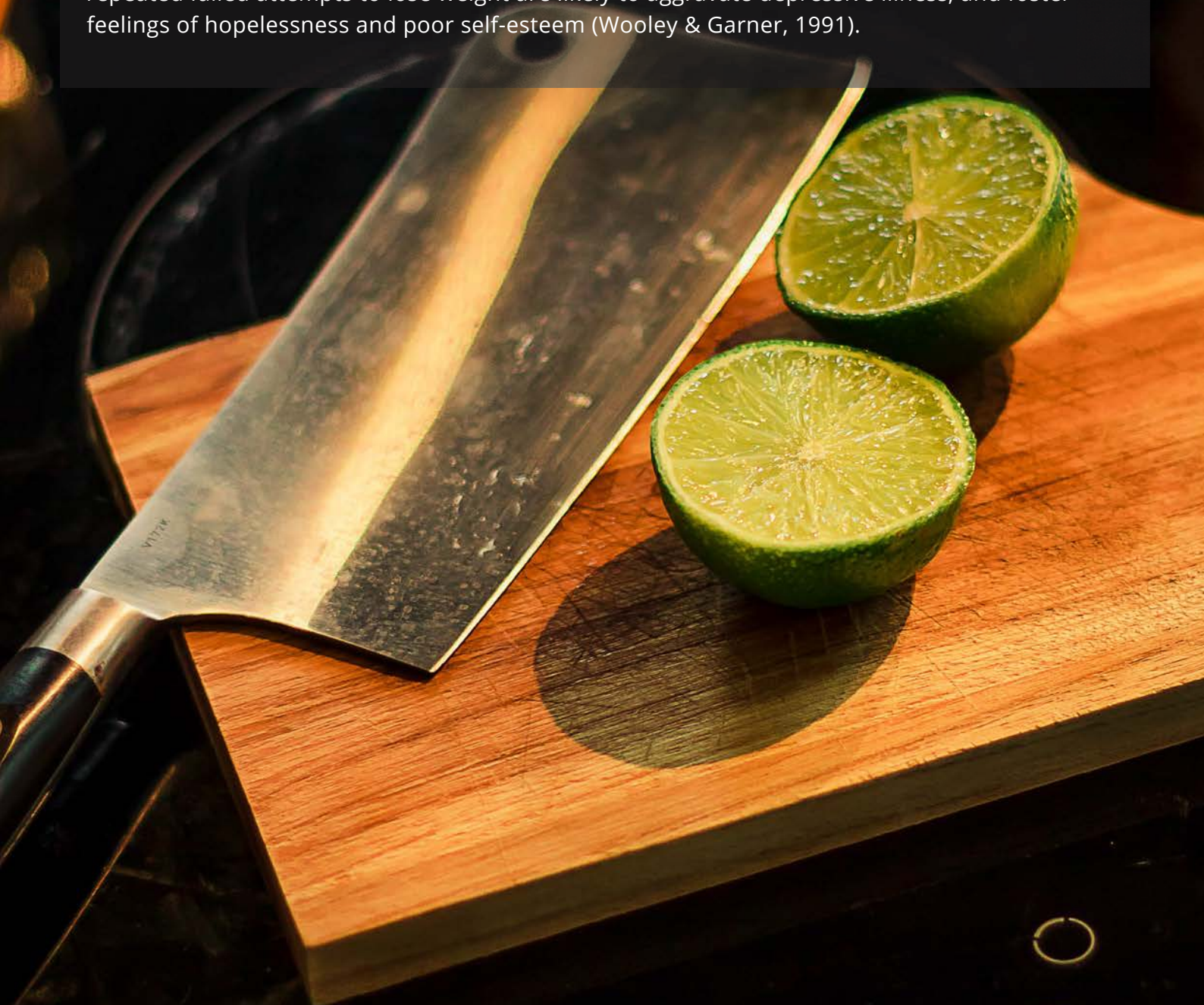
Obesity is a growing worldwide epidemic and a rapidly growing threat to the health of populations in an increasing number of countries. It is becoming a major public health issue due to its increasing prevalence in the past 20 years. In 2016, approximately 13% of the adult population in the world were obese (World Health Organization (WHO), 2018). In fact, obesity is now becoming so common that it is replacing other more traditional problems such as undernutrition and infectious diseases as the most significant cause of ill-health. The problem does not only lie within the adult population. Increasing rates of childhood obesity have been reported in many countries over the last 20 to 30 years (Loke et al., 2008; Wang & Lobstein, 2006) and the WHO reported 42 million overweight and obese pre-schoolers globally in 2013 (WHO, 2014).

Singapore is not spared from this threat either. The National Health Survey (NHS) reported that the prevalence rate of obesity in Singapore had risen to 10.8% in 2010 from 5.1% in 1992 (Ministry of Health, 2017) – one in nine Singaporean adults aged between 18 to 69 years were obese in 2010 (i.e., BMI 30 or greater). Similarly, the prevalence of childhood obesity and being overweight in Singapore has increased over the past few decades and was reported to be at 11% in 2012 (Mukherjee et al., 2016).



Obesity is a multifactorial condition that impacts the physiological, psychological, and social aspects of an individual. It poses an increased risk of several chronic diseases, such as type 2 diabetes mellitus, cardiovascular and cerebrovascular diseases, osteoarthritis, and cancer, as well as psychological disturbance (Dixon, 2010; WHO, 2018). The 2010 NHS revealed that 1.7 million Singaporeans who were overweight (BMI of 23 or greater) were vulnerable to diseases associated with obesity, such as diabetes, hypertension, and heart disease. This included one million Singaporeans who were either pre-diabetic or suffered at least one or more chronic conditions (Health Promotion Board, 2014). When an obese individual has direct, weight-related morbidity, such as hypertension, type 2 diabetes and sleep apnea, the individual would be considered as being morbidly obese (Balsiger et al., 2000).

A high prevalence of psychological comorbidities is observed in obese individuals, particularly mood disorders, anxiety and low self-esteem. Extremely obese individuals are almost 5 times more likely than their average weight counterparts to have suffered from a major depressive episode (Sarwer et al., 2012). Obese individuals are also subjected to increased body image dissatisfaction, prejudice, and discrimination (Kaminsky & Gadaleta, 2002). Additionally, the repeated failed attempts to lose weight are likely to aggravate depressive illness, and foster feelings of hopelessness and poor self-esteem (Wooley & Garner, 1991).




Bariatric Surgery

Bariatric (weight loss) surgery is regarded as the most effective treatment for individuals with severe obesity. On average, bariatric surgery results in 20%–35% of body weight loss after 2 to 3 years (American College of Cardiology, & American Heart Association Task Force, 2014). This weight loss substantially decreases somatic comorbidities associated with metabolic syndrome (i.e., risk factors that raise the risk for heart disease, such as diabetes, stroke) (Bray et al., 2016).

Numerous psychological benefits are observed post-surgery by many, such as having greater appreciation of life, an increased sense of self-esteem, self-concept, and personal strength as well as an improvement in the ability to relate to others and a better quality of life (Kubik et al., 2013; Shiri et al., 2007). It was suggested that some of these aforementioned benefits may be proximal mediators of commonly assessed mental health outcomes such as depression (Griauzde et al., 2018). Individuals who underwent bariatric surgery reported a significant decrease in depression and anxiety in the year after surgery, compared to an obese control group treated with diet and exercise counselling (Karlsson et al., 1998).

However, the benefits do not extend to all. Some individuals reported that after bariatric surgery, they struggled with weight loss, maintenance, and regain, and resulting body image dissatisfaction (Kubik et al., 2013). Some individuals were emotionally affected by their expectations about post-surgery outcomes, such as weight loss, weight regain, and undesirable skin changes. Furthermore, individuals with severe preoperative psychopathology also face difficulties in maintaining their psychological well-being post-surgery (Kubik et al., 2013).





Psychological Assessment and Intervention

Considering the discussed complexity of obesity and its significant impact on psychological health, it is necessary that a comprehensive preoperative psychological assessment be carried out as a standard of care for patients undergoing bariatric surgery.

Some of the critical domains assessed include understanding the patient's reasons for seeking surgery, their weight and diet history, current eating behaviours, understanding of surgery and its associated lifestyle changes, social support and psychiatric history (Snyder, 2009). This assessment allows for a better understanding of the patient's motivation, readiness, behavioural challenges, and emotional factors that may impact post-surgical psychological outcomes.

Postoperatively, psychologists must seek to address psychological issues, such as suboptimal weight loss, disordered eating, body image dissatisfaction, substance abuse, depression and suicide. These suboptimal outcomes are often attributed to behavioural and psychological reasons rather than surgical ones (Herpertz, 2004).

It is, therefore, imperative that patients who undergo bariatric surgeries are guided towards an improved quality of life and psychological well-being through the continued provision of psychological care.

Orthorexia Nervosa: When Healthy Eating Becomes Deadly

Carrie Lee



In recent years, much attention has been devoted to healthy eating. We pay more attention to the overall nutrition that we are getting, we spend more time deliberating on food quality and we focus more on increasing our daily activity levels. While this trend continues to benefit the well-being of millions, it has also ironically created a new monster of its own – orthorexia nervosa.

Orthorexia nervosa is an eating disorder coined in 1996. Defined as a pathological obsession with healthy eating, individuals suffering from orthorexia nervosa often have a restrictive diet, a focus on food preparation, and adopt ritualized patterns of eating (Koven & Abry, 2015). Although it is yet to be recognized as a psychiatric disorder, orthorexia leaves a path of destruction in its wake, with adverse complications to the physical, psychological, and social aspects of victims. Starting out as a simple goal towards healthy eating, this often manifests into a deadly eating disorder, resulting in severe implications.

Symptoms of Orthorexia Nervosa

Generally, individuals suffering from orthorexia nervosa display obsessive and rigid attitudes towards the quality of their foods. The most pronounced symptom of orthorexia nervosa is

an obsession with eating “healthy foods” and focusing on the quality and composition of meals. Orthorexic individuals are hyper focused on the “purity” of their foods, such as where it came from, how it was processed, and the package it came in (Koven & Abry, 2015). Because of this, individuals struggling with orthorexia nervosa typically avoid food treated with chemicals or artificial substances, or those with significant amounts of fat, salt, sugar, and other undesirable ingredients (Costa et al., 2017). Outside of meals, they spend significant time researching food, sourcing for pure ingredients, planning future meals, and indulging in food-related thoughts (Koven & Abry, 2015).

According to Koven & Abry (2015), this fixation is not led by religious beliefs or concerns regarding the food supply chain (i.e., sustainability, animal welfare). Rather, it usually stems from a desire to achieve a healthy lifestyle. Studies have found that individuals suffering from orthorexia nervosa tend to demonstrate inflated concerns towards their appearance and weight (Barnes & Caltabiano, 2017). Consequently, such concerns trigger a series of eating patterns that individuals believe can help to achieve their health goals. Unfortunately, the outcome of these behaviours is more often harmful than beneficial.

Effects of Orthorexia Nervosa

The implications of orthorexia nervosa on an individual's well-being are multi-dimensional and fatal. While individuals strive to maximise their health, prolonged suffering of orthorexia can result in nutritional deficiencies and medical complications (Koven & Abry, 2015). This is largely due to the omission of essential food groups that orthorexic individuals deem as "impure" due to possible contaminants being present (i.e., pesticides, additives, chemicals). Consequently, the presence of these contaminants could lead to the omission of basic foods such as vegetables, grains, dairy, and protein. This avoidance can be detrimental to the individual as they will lack the necessary nutrients to function. In fact, evidence has demonstrated that such dietary extremisms found in orthorexia patients can lead to medical complications similar to that of individuals with severe anorexia (Koven & Abry, 2015). Evidently, this demonstrates that healthy eating, when taken to extremities, can do more harm than good.

Furthermore, the damage of orthorexia nervosa is not just limited to an individual's health, but also affects their social, cognitive and emotional state. For example, orthorexic individuals often face intense frustration when they are unable to adhere to their "rules" about food. This breeds feelings of disgust, guilt and self-loathing within the individual, and can be damaging to their overall mental well-being (Mathieu, 2005).

In addition, individuals suffering from orthorexia nervosa are at risk of social isolation. Particularly, individuals may believe that their ideal of healthy eating can only be achieved when they are alone and have full control over their environments. This often results in them eating alone in their familiar environments (i.e., at home). Moreover, these individuals may also view their ideals of healthy eating as being "morally superior" and may wish to stray from those who do not share the same belief. Often dining alone and alienating their social circle leave sufferers detached from their social life (Mathieu, 2005).

The display of such rigid behaviours in orthorexic individuals is associated with cognitive elements. Koven and Senbonmatsu (2013) found that these individuals often have weaker cognitive flexibility, a high degree of self-focus, and depleted working memory resources.





Particularly, weaker cognitive flexibility leaves individuals fixated on ideals that they find hard to part with. This may explain why orthorexic individuals hold such firm stances. This is supplemented by a hyperfocus on themselves, which contributes to their fixation on their physical well-being (Barnes & Caltabiano, 2017). Consequently, their preoccupation with these food-related thoughts contribute to depleted working memory resources, where they are unable to retain information for brief periods.

Taken together, we see how these different dimensions contribute to the trajectory of orthorexia nervosa in individuals. In order to avoid such negative feelings, individuals are motivated to keep to their rigid eating patterns. This is propelled by cognitive components that make it difficult for individuals to pull away from such rigid behaviours. Over time, the lack of social interactions and input from their loved ones can keep individuals engrossed in their rigid obsession with healthy eating and justify their current beliefs and behaviours.

The idea that orthorexia nervosa is a never-ending cycle does not stop there. Current societal ideals continue to roll out campaigns targeted at healthy lifestyles. Consequently, as orthorexia presents itself as symptoms that are aligned with this societal ideal of engaging in healthy eating habits, this makes it difficult for others to identify the presence of an eating disorder in orthorexic individuals. This further exacerbates the obstacle where sufferers are often left to their own devices and are only identified when it is too late.

Orthorexia nervosa is an eating disorder that deserves more attention, given the path of havoc it wreaks on its victims. Currently, the diagnostic criteria of orthorexia are still up for debate, given the similarities it holds with anorexia and obsessive-compulsive disorder (but this is a discussion for another time). In the long run, having proper diagnostic boundaries will be imperative in our future steps in identifying, treating and preventing orthorexia nervosa (Koven & Abry, 2015).

Until then, it is important that we learn how to keep ourselves within the safe boundaries of healthy eating habits.

Here is a list of tips for you to keep in mind:

- Learn about how to maintain a healthy lifestyle from credible sources (i.e., Health Promotion Board). This can help you draw clear boundaries on what is safe, and what is not.
- Stay physically active! Get yourself involved in meaningful activities that make you feel good about yourself.
- Talk about your problems. If you feel that your current habits are starting to become problematic and adversely affect your everyday living, don't be afraid to seek out professional help and work towards getting better.



Watch Me Eat!

The Rise of Mukbangs

Charmaine Leong

Just a mere 10 years ago, we might have found it ludicrous that streaming oneself eating could become a lucrative full-time career. Fast-forward to the present day: Online eating shows, more commonly known as Mukbangs, have taken over the internet. Mukbang is short for *Muknunbangsong* – a Korean phrase which loosely translates to ‘a broadcast where people eat’ (Choe, 2019). In these Mukbangs, the host (Mukbangers) typically broadcasts themselves eating large quantities of food to a virtual audience. It is also common for the host to interact with their viewers, as though they are friends having a casual meal.

Although Mukbang originated from Korea in the late 2000s, its popularity has spread globally with Mukbangers on various streaming sites such as YouTube and AfreecaTV garnering millions of views daily. This phenomenon begs the question: Why has watching strangers eat, something seemingly so simple and mundane, piqued the interest of so many?



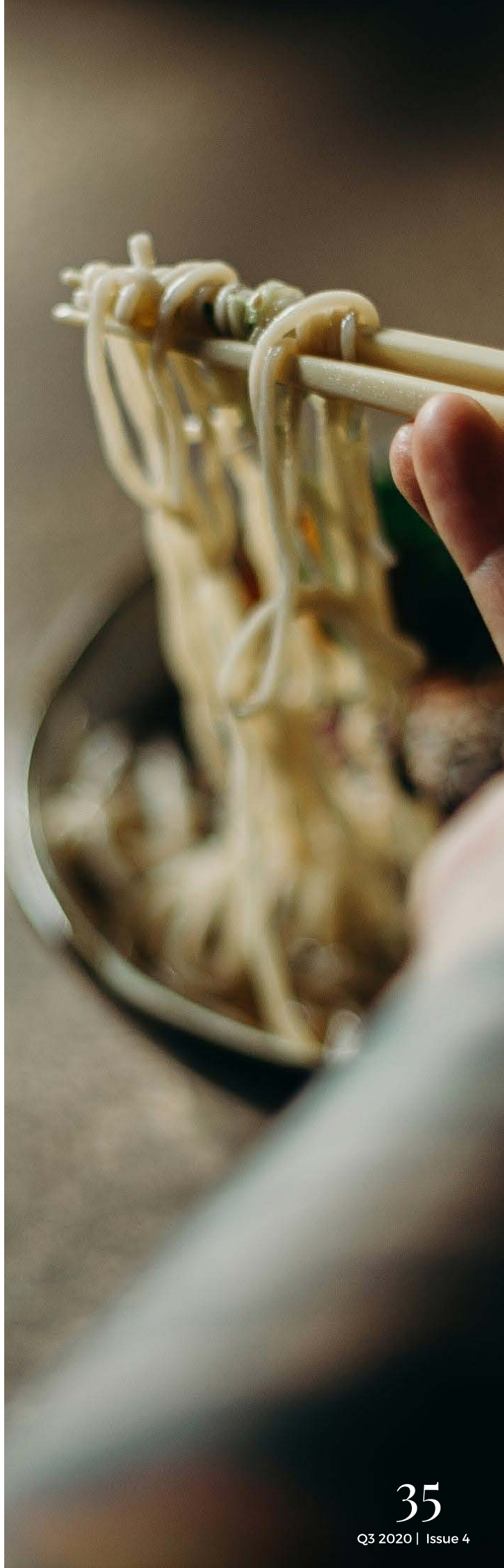
Why has watching strangers eat online become a global pasttime?

Vicarious Eating

A high caloric diet consisting of junk/comfort food is a Mukbang staple. Many use Mukbangs to fulfil their desires to eat certain foods when they might not be able to do so due to a lack of access (e.g. fast-food chains that are only available in certain countries) or dietary restrictions (Kircaburun et al., 2020a; Strand & Gustafsson, 2020). An experimental study by Tu and Fishbach (2017) found that after participants watched another eat a certain food, they craved that food less and postponed consumption of said food item. This is by no means conclusive of Mukbang's usefulness as a dieting tool, but it also gives us an insight to some of the underlying motives (of feeling satiated) behind frequent Mukbang watching.

Disgust-inducing Entertainment

Moreover, Mukbangs can be entertaining when the hosts eat copious amounts of food which do not seem humanly possible. Sometimes, viewers also tune in to watch Mukbangers eat strange and exotic foods such as mealworms or silkworm pupae (Kircaburun et al., 2020a). It might seem strange that so many viewers seek out disgust-inducing food-related content online. However, similar to thrill-seekers on their skydiving escapades, viewers who seek out these kinds of Mukbang videos may do so to experience an increase in arousal and excitement – but without needing to place themselves in direct harm by actually attempting these extreme eating acts (Kraus, 2020). Such enjoyment of negative emotions is actually commonly experienced by many and has been dubbed by psychologists as 'benign masochism' (Rozin et al., 2013). Yet, the sometimes disgust-inducing content prevalent on Mukbangs has made it a rather novel experience that might have potentially contributed to its popularity beyond Asia (Pereira et al., 2019).





Loneliness

Nevertheless, there is more to Mukbangs than just disgust-inducing entertainment. Mukbangers frequently interact with their virtual audience by asking them about their day and sometimes even acting as though they are physically dining together (e.g., pretending to offer their viewers a bite of their food). As viewers can respond to the Mukbangers by commenting and/or donating to them, a virtual bond between the Mukbanger and viewer is fostered. This may be another major reason why viewers flock to Mukbang videos; especially in Asian cultures, where eating has long been conceptualised as a social activity, so much so that solo dining can make many uncomfortable (Choe, 2019). Given the rising trend of individuals living alone globally (Ortiz-Ospina, 2019), watching Mukbangs could also be a way to cope with loneliness and having to dine alone (Kircaburun et al., 2020a; Anjani et al., 2020).

Following the Crowd

A survey by Pereira and colleagues (2019) found that both Asians and Caucasians in Australia who had a stronger desire to fit in with and be liked by others were more likely to watch Mukbangs. While watching Mukbangs may still puzzle many non-viewers, it could instead make viewers feel as though they belong to a special group; much like how one might find pleasure in understanding an inside joke shared only amongst friends. Given that Mukbang videos have become rather trendy recently, many might have felt compelled to check out what the hype surrounding Mukbangs is all about so as to not feel excluded by this movement. Such societal influence has arguably further exacerbated Mukbang's global popularity.

Potential Dangers of Watching Mukbangs

Although Mukbangs are entertaining and might help many cope with loneliness, emerging research has raised some concerns over its popularity. Problematic Mukbang watching behaviours such as being unable to cut back on the time spent watching Mukbangs and/or using Mukbangs to forget personal problems were found to be associated with disordered eating and internet addiction (Kircaburun et al., 2020b; Kircaburun et al., 2020c). The trend of Mukbangers eating copious amounts of food might also trigger and normalise unhealthy binge-eating behaviours (Strand & Gustafsson, 2020).

While watching Mukbangs is typically a solitary activity (Anjani et al., 2020), its popularity can be interpreted as a manifestation of viewers' desire for social connection, amidst an increasingly solitary world. Since watching these videos emulate the gratification begotten by physically dining with others, an excessive reliance on Mukbangs to fulfil the desire for social connection could be problematic. Thus, in line with conventional wisdom about food, moderation is also key in our consumption of Mukbangs.

The global consumption of Mukbang videos is arguably re-defining our everyday dining experiences. Gone are the days when solo-dining was synonymous with loneliness and boredom as Mukbangs are bringing entertainment and perhaps even comfort to solo-diners everywhere. Given our increasing access and reliance on technology, it seems that Mukbang's popularity will not be slowing down soon.

Debunking the Myths of Anorexia Nervosa

Amerie Baeg, Cindy Chan, Elsa Tan & Henny Tan



Introduction

Anorexia nervosa is an eating disorder characterised by weight loss (or lack of appropriate weight gain in children), difficulties maintaining a healthy weight, unhealthy eating patterns, and significant body image concerns. Often, we find adolescents with anorexia nervosa restricting the number of calories and types of food they eat (choosing “healthier options”). They are likely to exercise compulsively and may also engage in self-induced vomiting or laxative use. This leads to a cycle of self-starvation where the body is denied essential nutrients needed to function normally.

Additionally, adolescents with anorexia tend to develop very rigid and dysfunctional beliefs about being fat, hence fearing weight gain intensely. As a result, it is not uncommon to find adolescents suffering from anorexia nervosa to be highly ambivalent about recovery. It is a disorder where the cognitive symptoms are usually the last to improve, therefore trying to reason with or reassure the child to eat is often ineffective. It may further lead to intense power struggles within the family.

Anorexia nervosa is a complex disorder and treatment requires the combination of medical, psychological, and dietary intervention to achieve full recovery. Currently, the most effective model of treatment for anorexia nervosa in adolescents is Family Based Treatment (FBT). FBT leverages on parents as agents of change and focuses on empowering parents to actively participate in their child’s recovery process.



The Many Myths of Anorexia Nervosa

1. Anorexia nervosa is just a phase in teenage years, it will go away after a while.

While anorexia nervosa generally begins during pre-adolescent and adolescent years as a way of coping in response to the increasing stressors associated with growing up, no one chooses to have an eating disorder. Dieting may be a phase but it can become a serious problem when it gets out of control. Ignoring unhealthy eating patterns and waiting for anorexia nervosa to resolve spontaneously rarely results in recovery.

2. Anorexia nervosa is not a serious illness.

Anorexia nervosa is a serious and potentially life-threatening illness that should not be taken lightly. In fact, it has the highest mortality rate of any psychiatric disorder (Sullivan, 1995). In addition to the psychological impairment and distress, anorexia nervosa is also associated with wide-ranging and serious medical complications that may affect every organ in the body. The absence or cessation of menses is also a common medical consequence in girls. Significant malnutrition for a prolonged period of time can have long-lasting consequences on developmental growth.

3. Only girls develop anorexia nervosa, boys do not develop anorexia nervosa.

Anorexia nervosa can affect BOTH boys and girls. While anorexia nervosa affects significantly more girls than boys, boys are not immune from developing this disorder. Existing prevalence rates likely underestimate the number of boys suffering from anorexia nervosa due to the social stigma associated with this diagnosis in males.


4. You have to be significantly underweight to have anorexia nervosa.

Anorexia nervosa affects ALL body types. An individual does not need to be underweight or look emaciated to be struggling with this disorder. Atypical anorexia nervosa is a term that describes individuals with the features of anorexia nervosa including weight loss, but are not considered significantly underweight. This can occur when these individuals start out being at a higher weight. Their bodies are, in fact, malnourished because of the trajectory of their weight loss and restrictive behaviours. Individuals with atypical anorexia nervosa can have just as severe medical and psychological complications as individuals with anorexia nervosa and their condition should not be misinterpreted to be any less severe. Unfortunately, individuals suffering from atypical anorexia nervosa often feel more distressed because their symptoms are not validated by their appearance.

5. Once you have anorexia nervosa, you can never recover fully.

While anorexia nervosa is complex and often notoriously considered “difficult to treat”, full recovery is possible. Family and friends play a crucial role in the support of and recovery from anorexia nervosa. Although recovery can take months or even years, with appropriate and timely treatment, children and adolescents suffering from anorexia nervosa do recover.





The Psychology of Food Preparation

Charmaine Wah

Serotonin? In my kitchen? It's more likely than you think!

With the arrival of the COVID-19 pandemic, a new wave of independent Instagram home bakeries appeared. The talent of our local bakers took the form of reimaginings of classic favourites such as brownies and cookies, and the creation of unique local recipes such as blue pea *kueh salat* and pandan biscoff tarts. When we had not much else to do but visit the supermarkets, it was common to find the bakery aisle looking like it had been ransacked.

Having to work from home, Singaporeans also found ourselves having extra time in the morning to whip up a picture-perfect dalgona coffee. Moreover, at the peak of COVID-19 infections, we had limited options for food. Some of us then decided that it was time to dust off our aprons and give cooking our cravings a go. Not only was cooking and baking a way for us to pass the time during the circuit breaker, it was a way for us to feel productive, satisfied and bond with our loved ones who cooked with us.

But Why Do Cooking & Baking Feel So Good?

What Makes Us Human

Cooking is a way for the regular person to engage in something creative and studies suggest that the act of preparing food simply makes us happier. Silvia and colleagues (2014) conducted a study investigating such everyday creativity. In the study, a common activity cited by participants was trying out new recipes. Additionally, the researchers found that the participants who reported doing something creative also reported feeling significantly happier and more active. A later study also found that engaging in creative activities, such as cooking and baking, predicted better emotional wellbeing the next day (Conner et al., 2016). In turn, the resulting increase in positive emotions – such as happiness, joy, excitement and enthusiasm – facilitated engagement in even more creative activity. Researchers suggest that there might consequently be a “particular kind of upward spiral for wellbeing and creativity.”


A study on college students also found that engaging in “Maker” activities such as cooking and baking facilitated mood-repair, helped them to “stay present-focused” and allowed them to build positive relationships with friends (Collier & Wayment, 2017).

Engaging in these activities was significantly associated with greater subjective well-being (SWB) [1] and high arousal. Past studies have shown that high arousal may contribute to the experience of flow [2] because it enhances attention and engagement. At the same time, high arousal disrupts rumination over both everyday and major life problems (Delle Fave & Massimini, 2005). These processes may explain why some people find preparing food to be relaxing and enjoyable.

[1] Subjective well-being (SWB) is defined as how a person perceives their lives to be in terms of how satisfied they are as a whole and how they feel about it (Diener, Oishi & Lucas, 2002).

[2] Flow is defined as the positive mental state of being completely absorbed, focused, and involved in your activities at a certain point in time, as well as deriving enjoyment from being engaged in that activity (Csikszentmihalyi, 1990).





Furthermore, Dr Anthony DeMaria, a psychologist and clinical professor of psychiatry at Mt. Sinai's Icahn School of Medicine, suggests that engaging in the ritualistic and repetitive motions of cooking plays a part in "creating a sense of comfort, calm and satisfaction that can carry us through the rest of the week" (Brown, 2018). Research on rituals gives us a clue as to how cooking can relieve anxiety in this way (e.g., Brooks et al., 2016; Hobson et al., 2017). According to Brooks et al. (2016), it is paramount to believe that a series of actions or behaviours constitutes a ritual in order for it to reduce anxiety. In addition, studies have shown that it helps to assign meaning to our rituals in order for the rituals to be effective in relieving anxiety (Brooks et al., 2016; Malaquias et al., 2014; Hobson et al., 2017).

An example could be a weekend family ritual where you cook a meal together and treasure the time to bond. It could even be as simple as a morning routine of making a hot cup of coffee to ease into a productive workday. Interestingly, studies have also shown that an increase in anxiety levels lead to an increase in ritualistic or repetitive behaviour, sometimes even unconsciously (Brooks et al., 2016; NewsRx Health, 2020). In the context of the pandemic, perhaps a reason why there was a surge in home baking and cooking around the world was because it was how many of us coped.

Therapeutic Cooking

In recent years, evidence-based cooking interventions have also been adopted in therapeutic and rehabilitation settings. Notably, cooking has been used as a tool to assess cognitive and physical ability and development. Such tools have been used in occupational and rehabilitation therapy (Farmer et al., 2017). The act of cooking works great as an assessment because it is a familiar task of daily living, uses physical engagement and requires executive function [3].

[3] Executive functions refer to higher level cognitive processes of planning, decision-making, problem solving, action sequencing, task assignment and organization, effortful and persistent goal pursuit, inhibition of competing impulses, flexibility in goal selection and goal-conflict.




Studies evaluating cooking interventions also suggest that food preparation has several psychosocial benefits. In Farmer and colleagues' review (2017), they found that cooking interventions in various settings have been successful in raising self-esteem, improving psychological well-being and quality of life and decreasing anxiety.

Such cooking interventions had a positive impact in community kitchens[4] for low-income populations (Engler-Stringer, 2007), in occupational therapy programmes (Haley, 2004), among elderly with dementia in residential facilities (Fitzsimmons, 2003) and among hospital rehabilitation programmes (Hill, O'Brien & Yurt, 2007). Another common benefit that the group-based cooking interventions had was that they created a safe space for social interactions (Farmer et al., 2017). Socialisation, in itself, could be considered a health benefit. However, Farmer and colleagues opine that it is still unclear what the source of all the benefits above is — whether it was the act of learning to cook or the act of learning to cook with other people.

[4] Community kitchens are a public space where groups of people can come together to cook meals.

There is also emerging evidence that cooking-based interventions would be beneficial in mental health settings. A pilot study with inpatients with severe eating disorders, such as anorexia nervosa, was conducted where guided cooking groups were created to improve cooking-related motivation and ability to prepare and eat healthy meals (Lock et al., 2012). The study found long-term improvements in both the patients' ability to prepare meals and cooking-related motivation. Lock and colleagues (2012) concluded that the programme was both effective and durable. While the study's results require future replication, it creates optimism that innovative forms of therapy such as cooking interventions would become more commonly practised in mental health settings.



Meanwhile, a counselling programme called the “Cooking For One” series was adapted for residents of a hospice to deal with their grief of losing a loved one and helping them to adjust back to daily life (Nickrand & Brock, 2017). The programme combined the principles of cognitive behavioural therapy[5] (CBT) with meal-planning, grocery shopping and cooking for one. While the programme was reported to be successful and popular, no systematic investigations were conducted to evaluate the effectiveness of the programme in achieving its intended goals. Based on the literature of culinary-based therapies for mental health populations, Dr Susan Whitbourne, Professor Emerita of Psychological and Brain Sciences at the University of Massachusetts Amherst, opined that it would be premature to conclude that such programmes could replace more robustly researched types of therapy like CBT (Whitbourne, 2019).

Overall, we currently have some idea as to why preparing food feels good and emerging evidence to support the effectiveness and benefits of cooking interventions. However, we are still left with several unanswered questions. Most importantly, is there something innate and specific about preparing food that causes these benefits? While cooking and baking at home is unable to replace proper therapy led by professionals, we cannot deny that it is an essential and meaningful part of our lives. To many, it remains a comforting and important hobby — maybe that in itself is enough.

[5] In the context of the grief counselling programme, cognitive behavioral therapy addresses irrational beliefs, feelings of depression or anger and avoidance or numbing behaviors with a goal of leading the individual to adapting to a life, which no longer includes the lost loved one (Nickrand & Brock, 2017).

"Tell me what you eat and I will tell you who you are"

Connections between food, family and friendships

Nicola Cann

Introduction

As the above quote from Brillat-Savarin suggests, food choices can be understood as going beyond simple decisions around personal preferences and physical sustenance. In addition to meeting our physical needs, food can communicate information about our feelings, memories, history and culture.

Consider your favourite childhood meal. What memories does this meal evoke? What family rituals and cultural practices are associated with this dish? What might this meal tell us about you as an individual? While I cannot speak for you, food is inherently associated with family, friends and culture for me. Whether it's stinky *tofu* in Taiwan or *kopi luwak* in Vietnam, I see food as an adventure. I see it as a means to create new connections, sustain friendships, and to learn about cultures other than my own.

Food and Family

Food habits are largely defined by our family, with the habits we adopt in childhood usually continuing into adulthood. Traditionally, mealtimes were an opportunity for us to maintain social and emotional connections. Yet, this also has another role of enabling the establishment and embedding of family traditions in children. For children, mealtimes can thus be more broadly seen as social learning experiences (Bandura, 1978): a time to learn and rehearse communication and interaction skills and family protocols.



Indeed, researchers have found that communal practices such as food preparation and celebratory rituals can transmit values and traditions from one generation to the next, thereby creating a sense of cohesion and connectedness (Barilla Center, 2009; Parasecoli, 2014). Imagine, for example, how birthdays are celebrated within your own family. What family traditions have persisted from generation to generation? What are the defining features of these celebratory events for you? Do they remind you of your older relatives?

Various researchers also describe rituals such as preparing a favourite dish, or arranging dishes a certain way, as precious moments which are specific to individual families (Barilla Center, 2009). We may all have a sense of this by the feelings of nostalgia that can be evoked when remembering those special mealtimes and traditions from our childhoods. Moreover, childhood memories of food are also likely to go beyond the specific dishes consumed and often become interwoven with memories of events, feelings experienced, and the people we shared them with. As such, this attests to the notion that family traditions can truly become entrenched through food habits.

However, there is evidence that in some cultures, the tradition of families eating together is declining (Barilla Center, 2009). If true, this could have a significant impact on family cohesion and the passing down of traditions from generation to generation. In Singapore in particular, we lead busy lives and perhaps don't always prioritise family mealtimes, much less the preparation of a meal together. At a recent cookery class the teacher told me that she has many young students sent by their parents to learn how to cook local dishes. She was of the opinion that this was because these parents value their food traditions and want their children to understand their cultural heritage, but may not see the value in sharing food traditions as a family.





Beyond Family Connections

Extrapolating the idea that food facilitates connectedness, we see that it can also create a very tangible tie to our culture of origin. Many food rituals and habits are closely interwoven with aspects of our cultural identity; with food choices and preferences often structured according to sociocultural factors such as birthplace, gender, education level or ethnicity.

Cantarero et. al. (2013) suggest that the symbolic meaning of food choices allows us to place individuals within particular sociocultural groups. An example of this would be the apparent obsession that 'millennials' have with avocado which, if the media is to be believed, is thwarting young adults' dreams of home ownership. The stereotype (initiated from a public comment made by millionaire Tim Gurner in 2017) describes young adults as splurging cash on trendy brunches whilst lamenting the fact that they'll never be able to make it onto the property ladder. Visser (1999) also provides some interesting insights into how socioeconomic factors influence our food choices. For example the introduction and mass consumption of sugar in Britain during industrialisation provided cheap and quick energy for the working classes. This in turn led to a society with a love of cake, cookies and chocolate. So much so that cake-baking now forms part of the cultural identity of many British people, as typified in the iconic 'cream tea'.

Consider your own food preferences. Which foods hold significance for you and why? Some of the greatest pleasure I get from travelling is in experiencing new cuisines and flavours. This is partly because of my love of food, but equally because of the window into a new culture that these experiences provide. The evidence of these connections is obvious when you start looking for it. For example on a trip back to the UK for the first time in some years, many of my friends baked scones and invited me to their homes for tea. This abundance of home-baked cream teas, an iconic English treat, flooded me with feelings of nostalgia, and re-established my sense of belonging to my original home.

Conclusion

Food has been especially instrumental in how I've formed friendships since moving to Singapore. Whether it be learning more about my friends by sharing their food traditions, being initiated into the Singaporean durian scene or joining the *lo hei* with colleagues, Singapore has not disappointed. In a society where food features prominently, I have welcomed the many opportunities available to build connections in this way. Like many other expats here in Singapore, I am facing the increasing likelihood of not being able to go 'home' for Christmas.

Thankfully I am surrounded by creative friends with an equal appreciation of food, so my alternative Christmas will involve cooking with friends, each creating a dish that we consider traditional for our own versions of Christmas. A multicultural feast. In our own way we will be able to appreciate the simple joys of connecting with each other through food, celebrating our own traditions and creating new ones, sharing old memories and making new ones. I challenge the reader to also consider ways for us to creatively engage our families and communities through food.





TABLE FOR ONE!

Pansy Pan

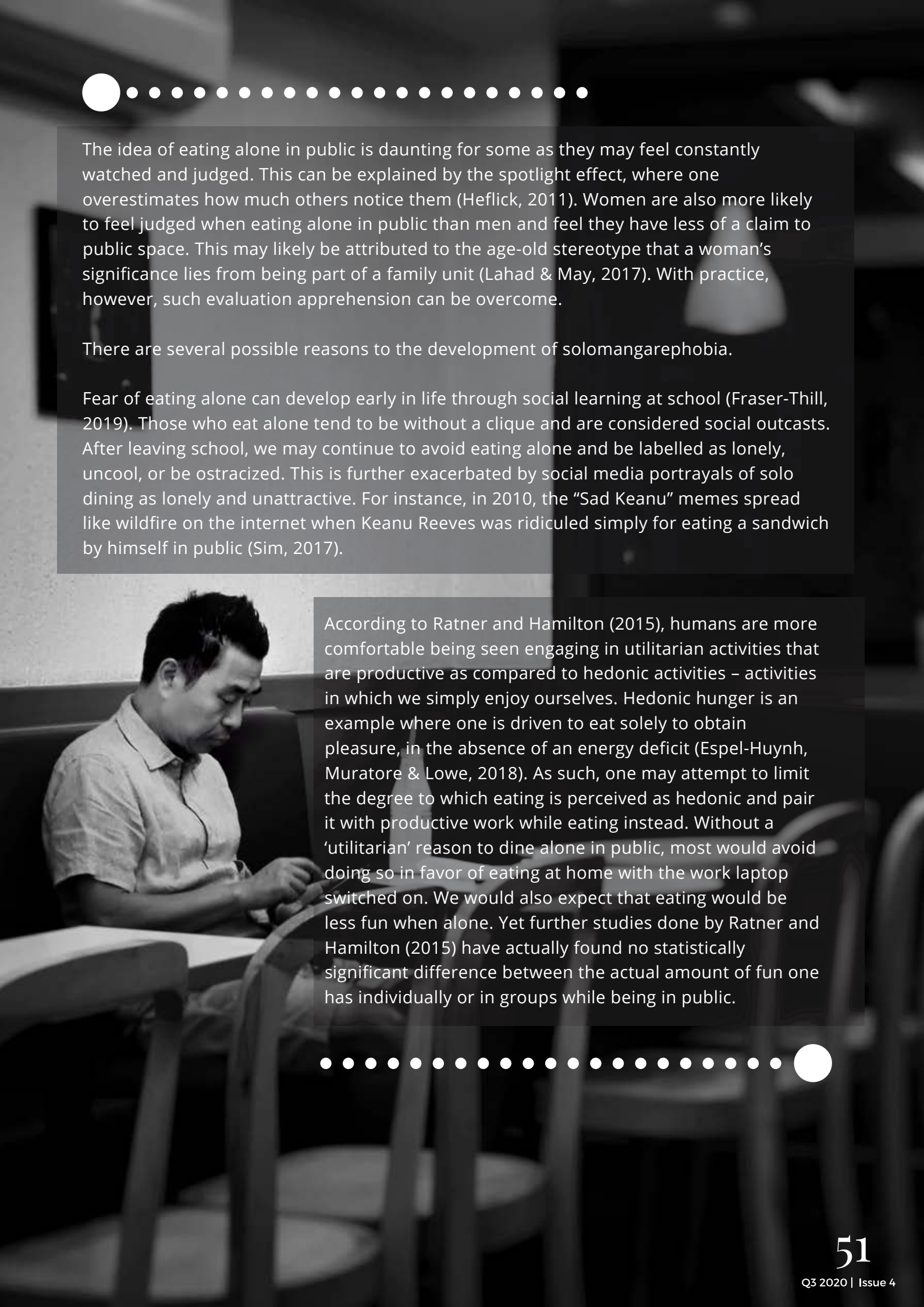
Food is essential for our survival but humans do not only eat to satisfy our hunger. Eating is also a common social activity where people converse and socialize during mealtimes. Social gatherings are held over Sunday brunches and romantic dates at expensive candlelight dinners. Popcorn is a must-have in cinemas and ice creams on a hot afternoon.

Nevertheless, there has been a rising trend of solo dining in the past decades. In fact, restaurant reservations made by solo diners have increased up to 80% from 2018 to 2019 (Haines, 2019). To accommodate this increasing number, restaurants, such as *Ichiran Ramen*, have created more private solo dining booths and large bar setups to create a more welcoming and inclusive dining environment for solo diners.

The rise in solo dining can be attributed to several possible reasons such as more people getting married at a later age and living alone, or a more hectic work schedule and an increasing preference to eat meals on the go (Balfour, 2014). Other reasons also include the rapid advancement in technology and mobility that keeps solo diners occupied with their smartphones and enables solo travels around the world (Halperin, 2015).

Yet despite this rising trend of solo dining, walking into a restaurant alone can still be considered an anxiety-provoking situation for many. Most would gobble down their food quickly so as to scarper from the restaurant immediately after finishing their meals (Roobens, 2019). On an extreme level, some may choose not to eat to avoid eating alone in public. This fear of dining alone in public is better known as solomangarephobia.



A black and white photograph of a man sitting alone at a table in a public space, possibly a cafe or library. He is looking down at his hands, which are resting on the table. The background is blurred, showing other tables and chairs. The lighting is soft and even.

The idea of eating alone in public is daunting for some as they may feel constantly watched and judged. This can be explained by the spotlight effect, where one overestimates how much others notice them (Heflick, 2011). Women are also more likely to feel judged when eating alone in public than men and feel they have less of a claim to public space. This may likely be attributed to the age-old stereotype that a woman's significance lies from being part of a family unit (Lahad & May, 2017). With practice, however, such evaluation apprehension can be overcome.

There are several possible reasons to the development of solomangarephobia.

Fear of eating alone can develop early in life through social learning at school (Fraser-Thill, 2019). Those who eat alone tend to be without a clique and are considered social outcasts. After leaving school, we may continue to avoid eating alone and be labelled as lonely, uncool, or be ostracized. This is further exacerbated by social media portrayals of solo dining as lonely and unattractive. For instance, in 2010, the "Sad Keanu" memes spread like wildfire on the internet when Keanu Reeves was ridiculed simply for eating a sandwich by himself in public (Sim, 2017).

According to Ratner and Hamilton (2015), humans are more comfortable being seen engaging in utilitarian activities that are productive as compared to hedonic activities – activities in which we simply enjoy ourselves. Hedonic hunger is an example where one is driven to eat solely to obtain pleasure, in the absence of an energy deficit (Espel-Huynh, Muratore & Lowe, 2018). As such, one may attempt to limit the degree to which eating is perceived as hedonic and pair it with productive work while eating instead. Without a 'utilitarian' reason to dine alone in public, most would avoid doing so in favor of eating at home with the work laptop switched on. We would also expect that eating would be less fun when alone. Yet further studies done by Ratner and Hamilton (2015) have actually found no statistically significant difference between the actual amount of fun one has individually or in groups while being in public.

Cultural differences may also play a role in the development of solomangarephobia. In Singapore, having meals together is considered a norm and dining alone in public is less frequently seen, as compared to in the United States ("In China, diners - and restaurants - develop a taste for table-for-one trend", 2019). In workplaces or schools, Singaporeans would usually wait for one another to buy their food before eating together. Not adhering to this norm would often be negatively regarded as antisocial or as being a workaholic. Conversely, American families tend to have family meals more often during the holidays (Canizares, 2017) and almost half of their meals are consumed in solitude instead (Ferdman, 2015).

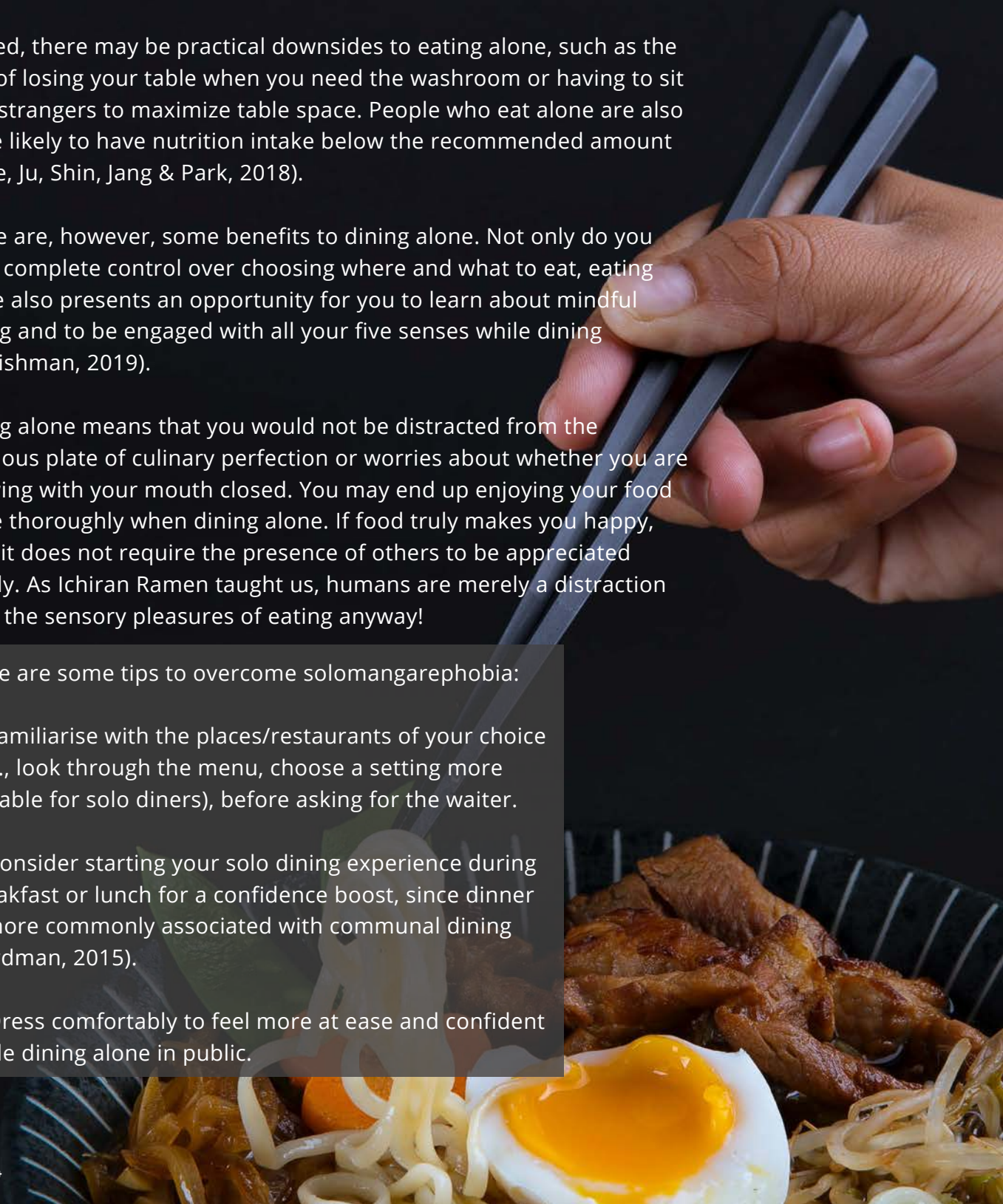
Indeed, there may be practical downsides to eating alone, such as the fear of losing your table when you need the washroom or having to sit with strangers to maximize table space. People who eat alone are also more likely to have nutrition intake below the recommended amount (Chae, Ju, Shin, Jang & Park, 2018).

There are, however, some benefits to dining alone. Not only do you have complete control over choosing where and what to eat, eating alone also presents an opportunity for you to learn about mindful eating and to be engaged with all your five senses while dining (Englishman, 2019).

Eating alone means that you would not be distracted from the delicious plate of culinary perfection or worries about whether you are chewing with your mouth closed. You may end up enjoying your food more thoroughly when dining alone. If food truly makes you happy, then it does not require the presence of others to be appreciated wholly. As Ichiran Ramen taught us, humans are merely a distraction from the sensory pleasures of eating anyway!

Here are some tips to overcome solomangarephobia:

1. Familiarise with the places/restaurants of your choice (e.g., look through the menu, choose a setting more suitable for solo diners), before asking for the waiter.
2. Consider starting your solo dining experience during breakfast or lunch for a confidence boost, since dinner is more commonly associated with communal dining (Ferdman, 2015).
3. Dress comfortably to feel more at ease and confident while dining alone in public.

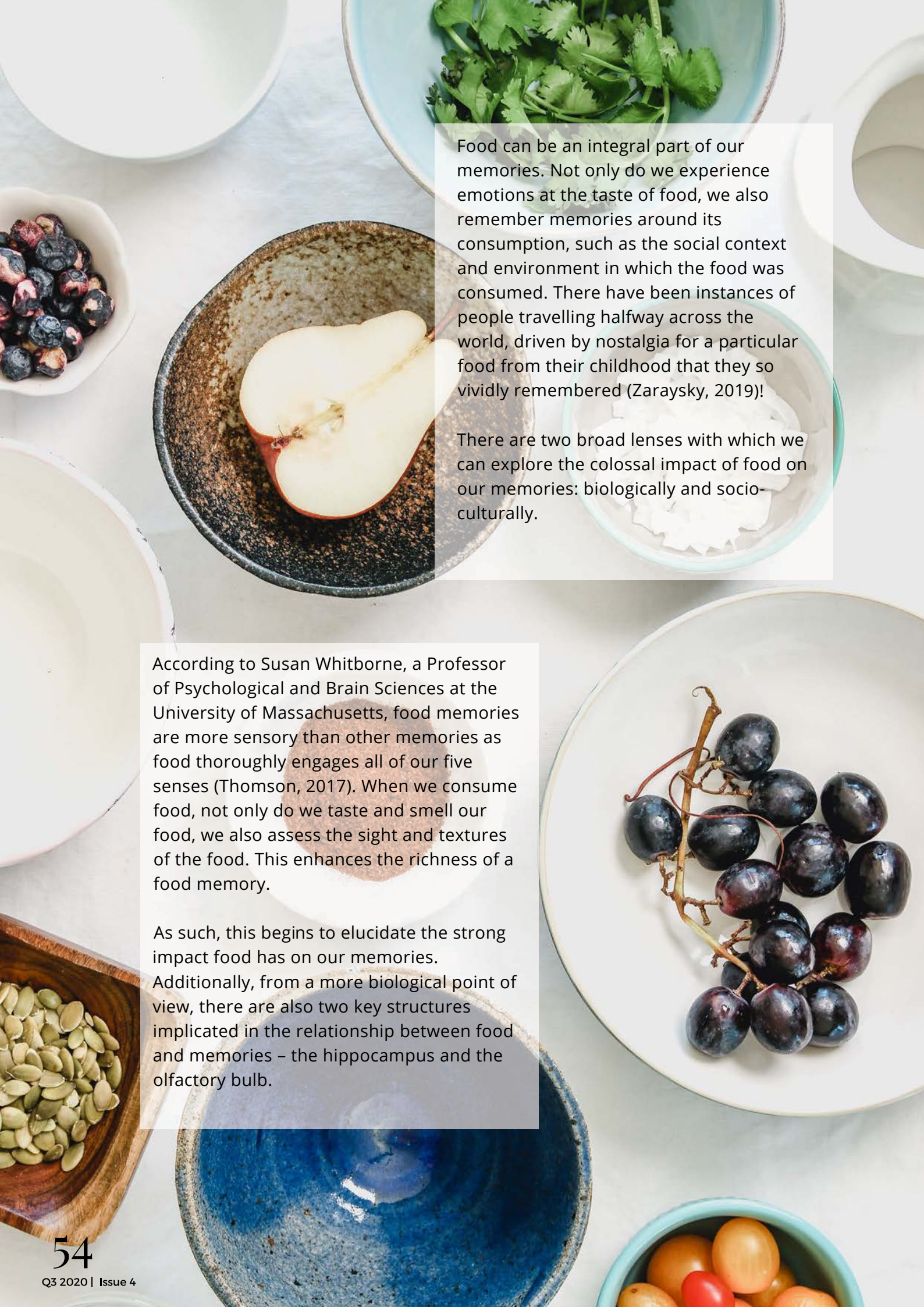




REMEMBER THE DAYS: FOOD AND MEMORIES

By: Anutra Guru

I was walking through the aisles of a supermarket on a recent grocery run. Realizing I had a bit of extra time on my hands, I decided to venture into the confectionary section – a place I typically circumvent for obvious reasons. Oh, the sweet, somewhat artificial aroma immediately picked up as I stepped into a sudden display of vivid colors. Rows upon rows of beautifully-shaped candies sat neatly in plastic boxes, waiting to be devoured. I scrutinized them, a youthful spring suddenly in my step, and came across familiar-shaped candies that I used to eat when I was a child. I remembered the sourness, the texture...and my childhood friends. Vague memories became clearer with each bite, my friends and I would buy these sour candies from the store down the street near our school; these expensive and precious indulgences that we would pay for with our own pocket money. We would talk about school and plan our next mini adventure; we would exchange our sweets and compare them extensively. Oh, how time flies!



Food can be an integral part of our memories. Not only do we experience emotions at the taste of food, we also remember memories around its consumption, such as the social context and environment in which the food was consumed. There have been instances of people travelling halfway across the world, driven by nostalgia for a particular food from their childhood that they so vividly remembered (Zaraysky, 2019)!

There are two broad lenses with which we can explore the colossal impact of food on our memories: biologically and socio-culturally.

According to Susan Whitborne, a Professor of Psychological and Brain Sciences at the University of Massachusetts, food memories are more sensory than other memories as food thoroughly engages all of our five senses (Thomson, 2017). When we consume food, not only do we taste and smell our food, we also assess the sight and textures of the food. This enhances the richness of a food memory.

As such, this begins to elucidate the strong impact food has on our memories. Additionally, from a more biological point of view, there are also two key structures implicated in the relationship between food and memories – the hippocampus and the olfactory bulb.


The hippocampus is a part of the brain that plays a crucial role in the formation of long-term declarative memories; which are memories that can be consciously recollected. It also has strong connections with parts of the brain that are important for emotion and for smell, which explains why events that combine smell and emotions such as food memories can be so particularly vivid and could occur without us attempting to consciously recollect them (Harvard University Press, 2012).

The hippocampus also has direct links to the digestive system, as many hormones that regulate appetite, digestion and eating behavior have receptors in the hippocampus. Due to the importance of food for survival, from an evolutionary perspective, the hippocampus is primed to form memories around food and it is no surprise that it could be a key target of memory in the brain.



Moreover, upon eating highly appealing food such as our favourite childhood candy, the neurotransmitter dopamine is released and the reward centres of our brains are activated. Although dopamine has an important role in reward systems, dopamine pathways are also involved in many other brain functions, one of which is turning short term memories into long term memories through the hippocampus. Hence, rewards such as the pleasure we get from consuming our favourite childhood food are stored vividly in our long term memory.

Another essential structure involved in the link between food and memories is the olfactory bulb, which is involved in the sense of smell. Research has shown that it is linked to areas in the brain associated with memory and emotional experiences (Reid et al., 2014). Moreover, it has been demonstrated that smells are particularly linked to autobiographical memory. Hence, as smell and memory are closely related, food memories might be somewhat distinctive in comparison to other memories.



Beyond the biological basis behind the importance of food in our memories, there is also a psychosocial component.

A lot of social activity occurs around food. Thus, the social context and meaning assigned to the food consumed in such contexts are also deeply embedded in our memories, making them especially powerful. For example, a lot of our memories around food in our childhoods are not just about the consumption of the food, but the entire context surrounding that as well. Watching the lively chatter of family members as they engage in food preparation or dining together as a family and feeling that sense of love and belonging also makes the memories special to us. There is also a lot of symbolic meaning that we assign to food-related memories. Not only do we associate our favourite dish our grandparents made with great taste, we also associate it with the care that went into the preparation. This further enhances the sensory properties of our favourite dish and creates powerful symbolic meaning to the food that will stay with us for a very long time.



We also have a fundamental need to belong. Food memories from our childhood are particularly memorable as the formation of secure attachments to people start to happen (Whitbourne, 2017). Memories that exemplify secure attachments such as having a meal together as a family and being in the presence of those we love help us feel a sense of belonging. According to Troisi et al. (2015), when people with secure and strong relationships were in isolation, they tended to eat more comfort foods that reminded them of their traditional meals or foods. It was posited that people tend to associate certain food items with members of their family, social gatherings, or being in the presence of people who love them. This helps them feel a sense of security and belonging in an otherwise isolated world devoid of love and familiarity.

Both the biological and socio-cultural impacts of food imbue upon us a strong connectedness with food that goes beyond mere taste or quality. We may be having the blandest porridge or the cheapest fast food but they are our food. Perhaps there are some truth to the expression "the best way to a person's heart is food", not any kind of food but the food that evokes the best memories and the warmest feelings.



EATING MINDFULLY

Dr Sunita Rai

Do you eat because you want to or feel the need to or because the body is hungry?

Why do we eat?

Food is essential for our living and it is fuel for the body. We have, however, changed our eating habits dramatically over the years. We are overconsuming, eating based on taste rather than a need and based on our emotions rather than what is nutritional for us. We do not look at food beyond consuming it, whereas mindful eating allows us to use eating as a tool to connect the body and the mind.



Dr. Jon Kabat-Zinn stated in one of his books, that "if you eat for other reasons than because your body is producing a "hungry" message – perhaps because you are feeling anxious or depressed, emotionally empty or unfulfilled, and you seek to fill yourself in any way you can – [then] the consequences of it may throw your system seriously and dangerously out of whack..." This style of eating destabilizes the body and confuses the mind into thinking that it is hungry even when it is not and over time, it becomes a chronic problem such as compulsive eating. This can also lead to long term diseases and a complete lack of self-regulation.

What is mindful eating?

Mindful eating is one of the informal practices in mindfulness. It is the moment-to-moment awareness and experience of selecting your food and engaging all of your five senses while consuming a meal. Dr. Ronald Siegal mentions in one of his books, that we need to observe our thoughts and feelings around food which includes urges and impulses to perhaps even soothe ourselves or to distract ourselves from our problems. The purpose of mindful eating is not to count calories or to lose weight, although these could be the benefits. Mindful eating has three stages to it and this starts from careful selection of food.

**It takes about
20 minutes for
the brain to
get feedback
that it is full.
So slow down.**

What's the difference between mindful and mindless eating?

The difference between the two is the process rather than the outcome. Here is a summary of some of the differences between mindless and mindful eating:

Mindless Eating	Mindful Eating
Eating at whichever restaurant or café that catches your eye	Carefully selecting restaurants that meet your dietary needs
Eating based on emotions (when you are bored or sad etc) or impulse	Eating based on body feedback of hunger
Choosing food based on likes and dislikes	Eating nutritionally healthy food
Eating quickly or impatiently	Pausing, slowing down, and fully engaging with the eating experience
Eating randomly, at any time and multiple times or binge eating	Eating regular and fixed meals such as twice or thrice a day
Multitasking while eating such as watching movies or being on social media or working	Monotasking by focusing on the eating experience
Eating until full or overeating	Stopping once there is a bodily sensation of fullness or slightly less than full
Ordering a lot of food and throwing away	Ordering small amount of food based on how much the body needs
No consideration for the origin of the food	Careful consideration to the origin and process of the food to reach your plate

Does eating mindfully have any benefits?

There are numerous benefits of mindful eating. Besides living life more intentionally and having a clearer mind and body interaction, we can see the following benefits of mindful eating:

- Greater awareness of emotions, thoughts and hunger sensations
- Reconnecting with the 5 senses
- Conscious and healthier food and eating choices
- Greater attention to details
- Reduced compulsive or binge eating
- Increased enjoyment of meals
- Reduced stress
- Reduced cravings for food
- Promoting weight loss and management
- Increased gratitude
- Healthier relationship with food



How do we eat mindfully?

Before

- **Awareness.** Be aware of your food choices. Making a list of your grocery shopping list and staying committed to it.
- **Choices.** Choose your food wisely. What is nourishing to your body and mind? What colours are there on your food preparation for today or perhaps in your selection? What are the proportion of whole grains, proteins, fats/oil, vegetables, and fruits?
- **Hunger Sensations.** Be aware of the sensations in your body. Are you hungry? Or are you eating out of boredom or sadness or an urge?
- **Monotasking.** Move away from any distractions such as movies and computers. Yes, this is hard but it can be done.
- **Paying attention.** Look at the entire plate of food before starting your meal. Is the proportion right or too much? Does it look like a balanced meal and nutritious? How do you feel about all this food being in your body?

During

- **Seeing.** Look at your food. Take time to really focus on it with care and full attention, as if this is the first time you are seeing it.
- **Holding and Touching.** Take one spoonful or a piece of the food. What is its weight like and texture feel? What else do you notice?
- **Smelling.** Bring the food closer to your nose. With each inhalation notice the smell. How does it smell? Is there anything distinct?
- **Mouth.** Place the food in your mouth and without chewing, notice how it gets into your mouth in the first place. What does it feel like your mouth.
- **Tasting.** Take one bite into it and notice the juice, flavour and sensations.
- **Hearing.** As you chew, notice the sound of chewing. What do you hear?
- **Swallowing.** Notice the sensations of swallowing as it travels from the mouth and into your stomach.
- **Chewing.** Take your next bite or mouthful and chew as slowly as you can.

After


- **Gratitude.** Have a sense of gratitude towards the food you just ate.
- **Noticing Fullness.** Notice how it feels when your stomach is full. What bodily sensations gives you a hint that you are full or perhaps half full? Once you have completed your meal, notice the sensations in the body after it is full.

If you prefer to use an audio track for Mindful Eating, you can download it from the Centre for Mindfulness website which has a wide range of guided audio tracks: <https://www.centreformindfulness.sg/audio>.



You Are What You Eat: How Your Social Life Affects the Way You Eat

Jessy Yong



When someone asks you, "What do Singaporeans eat?", you may think of the local dishes that Gordon Ramsay tried to recreate, or the *laksa* or *roti prata* from your favourite hawker centre. But do all Singaporeans really eat the same food? Chances are, Singaporeans do not exist as a homogeneous population that consumes the same food every day. Rather, we might consider there are many other overlooked societal factors on top of being 'Singaporean' which shape the foods we choose, the foods we desire, and the foods we abhor.

Youngsters and their crazy food trends

If you've seen the viral video, "91-year old Grandpa tries Bubble Tea", you would have witnessed an elderly grandpa expressing his disapproval of how expensive a tea with tapioca pearls is. But for many young Singaporeans, this tea is considered "essential" and garners long queues even during a pandemic. Whether it's bubble tea, *bingsu*, or *mala*, the younger crowd is particularly attracted to these foods not by mere coincidence. While we may reason that teens conform to the food preferences of their age group due to peer pressure, research shows that individuals instead subscribe to fads to affiliate with an identity congruent with the peer groups they aspire to belong to (Lyman, 2012). Furthermore, we often neglect that a young person is at an age of seeking novel experiences (Rappoport, 2010). Therefore, it is not just about liking what their friends like – riding on new food trends is part of the adolescent's experience of exploring the world around them.

What if we applied “Boys like blue, and girls like pink” to food?

If gender identity and stereotypes can emerge from certain colours, it wouldn't be too far-fetched to think that food could also do the same. Psychoanalyst Ernst Dichter conducted studies in the mid-1900s to demonstrate how coffee, meat and potatoes were deemed masculine, while rice, cakes, and tea were considered feminine (Rappoport, 2010). Even in more recent works, consuming meat is said to enable males to feel like “real men” (Rothgerber, 2013). Meanwhile, women have been reported to be more familiar with dietary guidelines and consume less red meat and processed meat compared to men (Beardsworth et al., 2002). Hence, the different dietary gender norms which you have internalised can influence the type of food you enjoy, and even influence your choice to engage in healthy eating habits.

Foods that make you go "ew"!

‘Now, make a choice. Choose between eating:

1. Pig brains
2. Grilled maggots
3. Dog meat

You have to decide between the slimy textures of the pig brains, the leathery yet mushy maggot corpse, and memories of your childhood pet dog. If the imagination is vivid enough, visualising eating these foods may cause you to scrunch up your face and wrinkle your nose, with a sense of revulsion stirring inside of you. This experience described here, is more commonly known as disgust. In psychology, disgust is one of our basic emotions and is closely tied to our morals. By eating meat from a dog, you may be violating the morals of those who perceive these animals as companions. But what about eating insects? Is there a moral element to it? Scholars have suggested that people view eating insects as primitive and uncivilised, perceiving it as a behaviour common only to hunter-gatherers (Looy, Dunkel, & Wood, 2014; Van Huis et al., 2013).

Some studies have also pointed out how insects were a source of food in China during a time of low economic wealth (Harris, 1998; Yen, 2009). If eating insects was only viewed negatively, as uncivilised and a poor man's food, then it explains why it may have a lower social acceptance within some societies. Finally, humans do not experience moral violations and disgust solely from “exotic” foods like insects. Think about meat. It seems quite common to say that fried chicken and barbequed ribs are delicious. Yet, many have found their way to a lifestyle of vegetarianism or veganism, for instance, as a way to counter the poor practices of factory farming. Some vegetarians even remind themselves that it is ‘flesh’ they are eating, in order to reinforce the immorality of eating a living creature (Beardsworth & Keil, 1992). Therefore, you are indeed what you eat – what you consume may very well reflect what you think is right or wrong as a person, and as a culture.

So...what is the psychological basis for these factors?

One possible psychological explanation comes from the Core-Context Theory of Meaning (Lyman, 2012). This theory explains how in a particular setting, an individual's senses, when combined with specific images, produces meaning to a person.

Perhaps you find pig brains disgusting. You can only relate to something out of the documentary, in which farms cruelly and immorally rear this animal, followed by the gruesome image of a butcher retrieving pig organs. However, your friend may react differently to the pig brains. In that moment, one could become the grumpy food critic in the movie *Ratatouille*, who upon eating a specific dish, brings him back to when he was a young child, eating what his mother cooked for him when he has a bad day. For your friend, he may have likewise been reminded of his childhood, with his mother's nagging love, the concern for his health, and the warmth of the soup, that make the dish not disgusting, but evoke pleasant memories instead. Therefore, foods become objects of associations and meaning – symbolising cruelty, nutrition, love, etc. – which underlie how people judge whether a food is good.

Another psychological explanation comes from a closer look at the concept of attitudes (Lyman, 2012). Attitudes can be defined as a positive or negative emotion towards a person, group, idea, or object (Thurstone, 1946). Individuals are found to change their attitudes based on peer opinion, especially if the person feels neutral or ambiguous about the food. In fact, if your friend eats the food delectably and makes satisfied exclamations, these nonverbal communications are factors that can sway your opinion of the food itself.

Lastly, an explanation of our food choices also comes from heuristics and decision-making. Heuristics are just like shortcuts – they are simple steps to help a person find the answer that they need (Cohen & Babey, 2012). A decision-making study by Koch and colleagues (2011) revealed how people rapidly decide on the food they want using these heuristic devices – even in as little as a third of a second! Consumers may use heuristic devices such as the object's appearance, price, or brand and it may therefore not be surprising if the aforementioned gender stereotype of what types of food are masculine and feminine comes into play as another heuristic device.

The psychological theories explored above are not mutually exclusive and may interact with each other to promote diverse and interesting preferences for certain foods. There are a whole host of other factors that have not been addressed too; these include socioeconomic status, the layout of a supermarket or restaurant, and many more. One thing is for sure, the way we eat is not only because we enjoy the food itself, but it is also because we enjoy it in the context that they are or were in.

What is Avoidant Restrictive Food Intake Disorder (ARFID)?

Cassandra Neo

8 patients who sought treatment at the specialist eating disorders unit at Singapore General Hospital (SGH) received a diagnosis of ARFID between 2013 to 2016 (Lai et al., 2019). There were 5 males and 3 females aged 15 to 39. Out of the 8 patients, 7 of them reported longstanding difficulties of more than 10 years.

Characteristics of patients with ARFID

Researchers found that higher chances of ARFID occur in males, younger people, and those with comorbid conditions with other medical or mental health disorders (Brigham et al., 2018; Fisher et al., 2014; Zimmerman & Fisher, 2017; Timimi et al., 1997). Comorbid conditions include selective eating since early childhood, generalized anxiety, Obsessive Compulsive Disorder (OCD), fear of vomiting or choking, gastrointestinal symptoms, food allergies, (Fisher et al., 2014), Autism Spectrum Disorder (ASD), Attention Deficit Hyperactivity Disorder (ADHD), learning disorder and cognitive impairment (Nicely et al., 2014).

Criteria for a diagnosis of ARFID

Since the publication of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), a new diagnosis called Avoidant/Restrictive Food Intake Disorder (ARFID) was introduced (APA, 2013; SAMHSA, 2016). The purpose of this new diagnosis is to identify patients who have restricted their eating to a clinically significant level and are unable to meet the needs of their body for normal functioning (Zimmerman & Fisher, 2017).

Case Study: Han

In 2017, I worked with Han, a 13 year old boy, who was given a comorbid diagnosis of ARFID and ASD at Great Ormond Street Hospital (GOSH). His presenting problems were the inability to swallow anything orally, repeated vomiting after trying food orally, and low mood and anxieties around his eating difficulties and social interactions.



DSM-V Criteria & Han's Symptoms

1. Avoidance due to the sensory characteristics of food (e.g. texture, taste, sight or smell).

Han vomited easily when given textured foods as a baby. Matson et al. (2009) found that children with ASD preferred food of a certain texture or smell.

2. Aversive consequences of eating (e.g. feeling nauseous or vomiting).

The transition into secondary school was anxiety-provoking as Han had no familiar friends with him. Han started to feel sick and had frequent coughs which turned into retching, followed by vomiting.

3. Clear lack of interest in food or eating, not explained by a lack of available food or cultural practices.

Han restricted his eating as he did not like the idea of vomiting and creating a mess in public spaces.

4. Marked interference with psychosocial functioning

Han was low in mood and anxious in social situations; his inability to eat normally affected his basic functioning and well-being (Ro & Clarke, 2009).

5. Unable to meet appropriate nutritional or energy needs resulting in significant loss of weight, faltering growth, nutritional deficiency and dependence on enteral feeding methods or oral nutritional supplements.

Han was admitted into the hospital as he had lost 10kg within a few months and was given feeds through a Nasogastric (NG) tube. The NG tube triggered vomiting as well and had to be replaced by a Percutaneous Endoscopic Gastrostomy (PEG). Eventually Han was referred to our mental health inpatient unit for further intensive treatment.

6. No concurrent medical condition, and not better explained by another mental health disorder. If there is a comorbid mental health disorder, the severity of the eating disorder requires additional clinical attention.

Multiple physical investigations were done and doctors found nothing physically wrong with Han.

7. No concerns about weight or body image, and the eating disturbance continues to occur in the absence of anorexia nervosa or bulimia nervosa.

Han expressed the desire to gain weight by eating more, but found it very difficult to do so (Zimmerman & Fisher, 2017). He stayed as an inpatient for 9 months, and moved to outpatient treatment for 4 months. An operation was subsequently scheduled to remove his PEG.

Treatment for ARFID

The management and treatment for ARFID tends to be similar to that of eating disorders where a large multidisciplinary team is heavily involved (Kennedy et al., 2018). A combination of therapy and medication was built into Han's treatment plan (Bourne et al. 2020; Lai et al., 2019; Sharp et al., 2017):

1. From the beginning, Han was very willing to have his feeds through his NG tube or PEG, compared to patients in the unit with anorexia who found it very distressing (Kennedy et al., 2018).
2. Han took medication prescribed by the psychiatrist to improve his mood and anxieties so that he would be more motivated to continue with treatment.
3. During family-based therapy, treatment involved psychoeducation regarding ASD which aimed to improve parental well-being, parent-child relationship and social outcomes for Han and his parents. His father realized that ASD caused Han to be highly anxious about changes, and the anxieties triggered vomiting.
4. Weaning off the PEG involved reducing the calories fed through the tube to stimulate hunger and the desire to consume food orally (Thomas et al., 2017). Medical monitoring from the doctor and dietician ensured that good hydration and weight gain was maintained (Sharp et al., 2017; Thomas et al., 2017).

5. Cognitive behavioural graded exposure therapy with the clinical psychologist was implemented by challenging Han to swallow increasing amounts of soup and nutritional supplements during the inpatient treatment, and maintaining of progress in the outpatient setting.

Screening for ARFID

Bryant-Waugh et al. (2018) designed a preliminary psychometric test called the Pica, ARFID, and Rumination Disorder Interview (PARDI) which is sensitive to the three main ARFID profiles (i.e. Criterias 1 to 3 listed above). Additionally, the Behavioural Pediatric Feeding Assessment Scale (BPFAS) and the Child Food Neophobia Scale (CFNS) can also identify symptoms of ARFID (Dovey et al., 2016).

Future Directions

Formulation is the crux of planning suitable individualized treatment leading to positive treatment outcomes (Lai et al., 2019), as causes and triggers differ from patient to patient (Bryant-Waugh, 2013). With an increasing awareness of what ARFID is, healthcare professionals can provide early intervention.



“I can’t stop myself from eating!”

Impulsivity and Eating

Adrian Toh



Some “eat to live”, some “live to eat”, and most of the others are in between. However, there is a group of individuals with disturbed and uncontrolled eating behaviour – eating impulsively. The consequences of impulsive eating are many, such as weight gain, obesity and other health issues. In fact, many studies identified increased impulsivity as a factor associated with obesity (Mobbs et al, 2010; Sfera et al., 2017).

The International Society for Research on Impulsivity defined impulsivity as “behaviour without adequate thought, the tendency to act with less forethought than do most individuals of equal ability and knowledge or a predisposition toward rapid, unplanned reactions to internal or external stimulus without regard for the negative consequences of these reactions” (Evenden, 1999).



Impulsive eating is driven by a complex interaction of genetic, psychological, and sociocultural factors:

Genetic Factors

Research shows that a number of genes that affect eating behaviour may be passed down through generations within the family (Bulik, 2005; Shinohara et al., 2004). These genes can affect brain circuits that control appetite and mood.

Psychological Factors

Individuals with emotional difficulties may be more likely to engage in impulsive eating. Many studies have shown an association between impulsive eating behaviours and depression, anxiety, and stress (Araujo, 2010; Rosenbaum & White 2015). Impulsive eaters tend to eat more and crave for specific food (e.g., sweets or carbohydrates) to cope with difficult emotions.

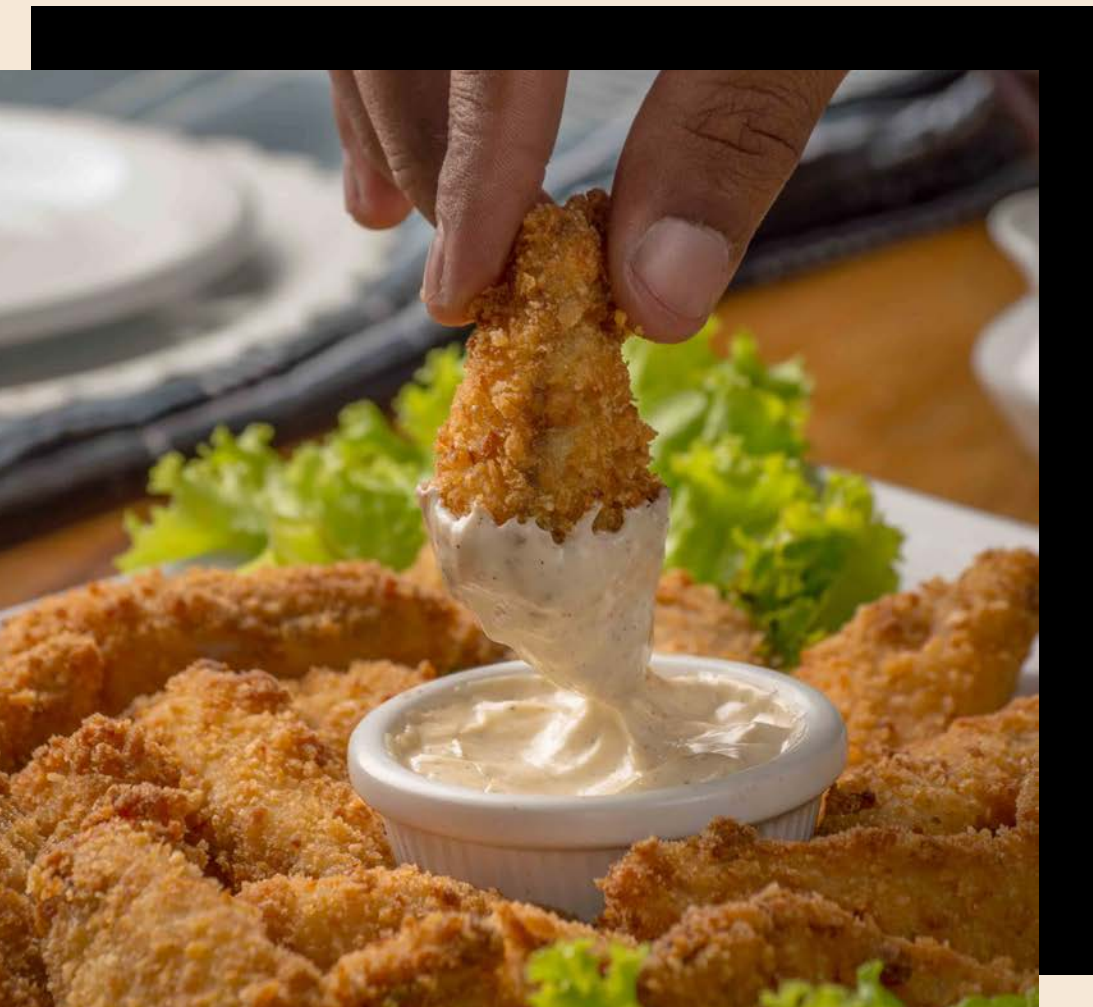
Emotional or comfort eating can be observed as a learned behaviour that has been reinforced from a young age. Parents may sometimes use food as a way to distract young children who are in distress. For example, a parent would often offer their toddler a sweet treat to soothe or placate him. Over the years, the same boy would pull out a bag of chips to munch as he studied when examinations were near and the stress levels were high. Occasionally, he would also be rewarded with food for good behaviours and performances. This association with food and good feelings would continue to grow stronger whenever he turned to food during stressful events and be rewarded with food during successes. Turning to food for comfort may be the easiest and most convenient way of coping with difficult emotions. Sometimes, it might be the only method that one uses to cope with distress.

Sociocultural Factors

We do not live in a social vacuum. Family, friends, cultures, and the media play key roles in shaping one's eating behaviours. These social influences provide opportunities for modelling of eating behaviours and accessibility to food.

As a result of being overweight from impulsive eating, one's health may suffer from medical conditions such as cardiovascular disease, high blood pressure, high cholesterol, gout and adult-onset diabetes.

Along with health issues, there is tremendous stigma surrounding obesity. This often causes a person to suffer in silence, unnecessarily, for long periods of time before seeking help. The shame associated with obesity may further exacerbate the emotional difficulties that these individuals may have been struggling with. For some, their relationships, career, finances, and social life may be impacted by their emotional struggles around obesity, and they may find it difficult to function in and perform normal daily activities.



However, all hope is not lost. Early psychological treatment is key to a better prognosis and this will reduce the impact of impulsive eating behaviour on one's functioning.

Below are some practical tips that can help to address impulsive eating behaviour:

1. Increasing awareness

One of the key factors in impulsivity is the lack of awareness (i.e., the awareness of thoughts and of consequence) which often leads to poor decisions and resulting regrets. The regular practice of mindfulness exercise can help one to be more aware of the present moment, less reactive to stressors, better regulate emotions, and decrease stress and anxiety (Davis & Hayes, 2011). Research also indicates that mindfulness exercise decreases impulsive eating and increases physical activity (Ruffault et al., 2017). Keeping a food diary that includes information about the precipitating event(s), thoughts, and emotions can also help to increase awareness of triggers that lead to impulsive eating behaviours.

2. Planning

Having a meal plan can keep one from eating impulsively. For example, deciding what and how much to consume for each meal (e.g., breakfast, lunch, tea, dinner, snacks) even before the day begins would allow one to stick to and not deviate from the plan. Also, portioning out the food can prevent one from consuming more than planned. For example, dividing a bag of chips into four little bags for four sittings (and keeping them out of sight) can help to decrease mindless snacking.

3. Emotion regulation

Finally, learning to better regulate emotions can help to reduce vulnerability toward unwanted emotions and increase emotional resilience when these feelings do surface. It starts with understanding and labelling emotions, as vaguely defined feelings are much more difficult to manage. Subsequently, one can develop new strategies to regulate the emotions after labelling.





Inside an Eating Disorder Ward: Lessons from my Patients

Dr Soon Siew Peng

I spent nearly a decade of my early psychology career immersed in the world of eating disorders (EDs) through my research and clinical practice. This included working at a hospital ED ward in Australia. Looking at the homely, single-storey red bricked building with cows grazing lazily in the field next door, one would not fathom the agony and suffering within those walls.

Walking through the corridors of the hospital, an outsider would see spacious bedrooms with ensuite bathrooms and sunlight filtering through. The outsider would see a courtyard in which to savour the crisp morning air (or smoke, depending on what you relished); the area where we also gathered to sing Christmas carols once a year in the sweltering December heat. The outsider would see colourful posters, paintings and inspirational quotes lining the dining room walls. The outsider would see, but not know. For beyond the cosily furnished common room replete with bright orange sofas and an armchair that enveloped anyone that sank into it, were patients of all shapes, sizes, genders, sexualities, professions and ages who stayed to fight a long-suffering battle against a common enemy: their ED.

The signs of war against our patients' EDs were subtle. Together with the rest of my treating team (encompassing professions ranging from psychiatrist, general practitioner, specialist nurse, clinical psychologist, dietitian, physiotherapist, art therapist, music therapist to patient advocate), we strove to externalise our patients' EDs and help our patients recognise that we were on their side. It was us and the patients versus the patient's ED. We were there to support them in fighting this tyrant that oppressed them, decimated their relationships and wrecked their careers.

As part of our battle plan, we sent two staff to supervise all meals. Whilst the ED pressured the patients to hide food in their sleeves, Ugg boots or hair, our staff were there to support them in getting the nutrition they needed. Every meal was an event – with menus of mains, desserts, juices, yoghurts and the dreaded Ensure drinks if the ED thwarted attempts to finish meals. Patients had to sit in the common room to crochet, watch TV, draw or write for half an hour after every meal, as this was when the ED raged harshly and pressured them to use compensatory behaviours. Ensuite bathrooms were consequently locked and used only under staff supervision to help patients stand up to the ED's pressure to self-induce vomiting or do 100 star jumps to burn calories. Sharps, glass objects, mirrors, long wires and belts were also removed from bedrooms to keep patients safe from the ED that tells them they are unworthy, deserve pain or are better off dead. On top of this, our patients were also kept busy with a daily routine of participating in educational/therapy groups on nutrition, learning psychological skills and engaging in gentle exercise (as opposed to weight-loss driven compulsive activity), art therapy, music therapy and journaling.





In my years in the field, I have come to learn that EDs are often misunderstood. Clinicians shy away from and fear treating ED sufferers. When I was invited to give a public education talk, in addition to providing clinical experience and scientific evidence, I wanted my patients' voices to be heard. Hence, I asked them for ideas and they excitedly filled many post-it notes with their scribbles. The following is my attempt to address the common myths and misconceptions about EDs, with my patients' input where available:

1. EDs are not serious, they are “just a diet”. Isn't everyone dieting these days?

Chronic dieting has been associated with the later development of an ED, which can quickly become serious and potentially life threatening. In fact, Anorexia Nervosa has the highest mortality rate of any mental disorder (Smink et al., 2012). Individuals with EDs often lose their lives to suicide or medical complications. The death may even occur suddenly, even in those who are not severely underweight (e.g., from heart failure, electrolyte imbalances).

2. EDs are a choice and can be stopped by “willpower”.

The causes of EDs are complex. These include biological (e.g. genetics, neuroendocrine factors), psychological (e.g. low self-esteem, information processing biases) and social factors (e.g. peer pressure, the thin ideal in media) (Soon, 2012). Furthermore, there is evidence for altered brain circuitry in ED sufferers. Eating is largely driven by the taste of food, which stimulates a highly complex brain reward network. For most, learned associations relate food to pleasure, resulting in dopamine-related circuits becoming activated when we see, smell or think of food (Frank, 2013). For ED sufferers, neuroimaging studies instead indicate widespread alterations to brain circuitry, with eating-related fearful cognitions and anxiety-processing impacting the taste-reward system (Frank et al., 2016). Consequently, eating can be an immensely distressing experience for ED sufferers.

3. If someone isn't ready to recover from their ED, there is nothing that can be done to help them.

Some ED sufferers have difficulty recognising they are ill or the severity of their illness. Many also want to change their behaviours, but are fearful and tormented by their ED voice. Someone does not need to be ready in order to receive professional help – help should not cease to be an option in the face of uncertainty. In fact, early intervention leads to better outcomes.



4. As long as someone is not severely underweight, they are not that sick.

When one hears the phrase “ED”, a stereotype often comes to mind of an emaciated young female with protruding cheekbones starving herself for days on end. Although Anorexia Nervosa gets the most media exposure of all the EDs, it is actually the least common (less than 10% of treatment-seeking individuals with EDs). Most ED sufferers are in reality not underweight and may suffer from Bulimia Nervosa (about 40%), Binge-Eating Disorder or Other Specified Feeding and Eating Disorder (OSFED); the latter of which is an umbrella category for EDs that do not fit into earlier categories but cause significant impairment (remaining 50%) (Soon, 2012).

In order to assess if low weight is correlated with severity of illness, I compared my patients who met full DSM-5 criteria for Anorexia Nervosa (including being underweight i.e. having a body mass index (BMI) $< 17.5 \text{ kg/m}^2$) with my patients who had atypical Anorexia Nervosa (i.e. met all the criteria for Anorexia Nervosa except that despite significant weight loss, still has weight within or above the normal range, BMI $\geq 17.5 \text{ kg/m}^2$). I found no significant differences between the groups (Soon, 2012).

Those in the normal weight range were also found to have similar levels of dietary restriction, thoughts about dieting, guilt after eating, self-esteem, depression, anxiety and stress compared to those who were underweight (Soon, 2012). You cannot tell whether someone has an ED by looking at them; EDs are *mental illnesses*. It takes tremendous courage for ED sufferers to seek help. Trivialising their illness causes distress in ED sufferers who often fear that they are not being “sick enough” or “good enough” to deserve treatment.

5. If an ED sufferer is eating or has regained weight, they have recovered.

ED sufferers may still be experiencing immense distress and anxiety while eating, which is by no means a “normal” eating experience. They may be compensating for eating in secret later. This could be done through means like self-induced vomiting, excessive exercising, using diet pills, laxatives, diuretics or skipping their following meals. To cope with the distress of eating or weight gain, alternative maladaptive coping behaviours may also increase (e.g. other compulsive behaviours, deliberate self-harm, or alcohol/substance misuse). Recovery from an ED goes beyond re-feeding or weight restoration. Effective treatment involves learning new skills to replace the functions that the ED served, creating new adaptive coping mechanisms and healing from trauma. It may also require support from a specialised multidisciplinary team of healthcare professionals.

6. EDs are just about food and weight.

Although food and weight are the main concerns raised by ED sufferers, ED behaviours actually serve several functions and are also the outward manifestations of deeply-held core beliefs. Anecdotally, my patients have shared the following functions of their ED:

- Helps to numb emotions, avoid distress or traumatic memories
- Gives a sense of achievement, as numbers on the weighing scale are quantifiable
- Provides a sense of control (e.g. mind over biological urges) in a world that is largely uncontrollable
- Assists the sufferer in getting care in situations of abuse or neglect
- Maintains an emaciated, child-like, non-feminine frame to avoid sexual attention, hence provides a sense of safety from future/repeated abuse
- Provides a form of self-harm or punishment

Much of the literature provides evidence for such core issues underlying EDs. Through my research, I identified that Anorexia Nervosa is maintained by perfectionism, low self-esteem, and a general need for control (Soon, 2012), amongst other cognitive and metacognitive factors. The mechanisms that perpetuate EDs thus clearly go far beyond food and weight.

7. ED sufferers can accurately perceive their weight or body shape.

Body image disturbance is a common characteristic of EDs. This refers to a distorted perception of one's weight or shape.

I recall experiments I did with my patients whereby I got them to draw an outline on the wall of what they perceived their body shape to be. This was often an overestimation of their actual body size. Despite evidence to the contrary (I would have them lean against the wall and outline their actual body shape against their estimate), they frequently disbelieved me ("Did you tilt the marker at an angle to make the outline smaller than I am?"). In some ED sufferers, this distorted perception is even believed to delusional proportions, possibly due to hyperactivation of the dopaminergic system consequent from extreme malnutrition, comorbid mood disorders or electrolytic/hormonal misbalances (Behar et al., 2018).



8. Once someone has agreed to treatment or started recovery, they will feel better.

The opposite is true. Patients feel far worse (for months to years) before they feel better. EDs provide familiarity and safety and it is often easier to remain unwell. Recovery requires challenging oneself multiple times daily (ED sufferers are encouraged to eat three meals and three snacks a day), standing up to the tyranny of the ED voice and in some cases, gaining weight. Fighting the ED is a long battle. I'll let my patients' words speak for themselves.

"Treatment can be really traumatic."

"Recovering from ED is a choice, but it doesn't mean still not struggling every day with ED behaviours."

"Whilst people can be unwell when engaged with their ED, the distress associated with challenging this ED can be so much harder."



There is no love
sincerer than
the love of food.

George Bernard Shaw





Family Therapy for Eating Disorders

Cissy Li

Family Therapy for Eating Disorders, also referred to as Maudsley Family Based Therapy (FBT), is a well-established and evidence-based treatment for eating disorders. It is the recommended treatment for eating disorders in many countries (including the US, the UK, Australia and NZ), and is considered the most effective treatment to help young people living at home and under 19 years of age to recover from an eating disorder. Studies have shown that it is associated with reduced hospitalisation, faster nutritional rehabilitation and more favourable outcomes at 6- and 12-month follow up compared to other treatment options.

FBT is an outpatient treatment which is generally offered soon after a young person is diagnosed with an ED. In Singapore, FBT is offered as a treatment option for eating disorders by SGH, KKH, and by a small number of practitioners in private practice. FBT practitioners will work alongside a multi-disciplinary team in order to monitor the young person's physical and psychological recovery.

How does FBT work?

Although sessions are tailored to individual families and no two FBT sessions will look the same, FBT does have a predictable and manualised structure. After an assessment process, the FBT process can be broken up into 3 "phases".



Phase 1: Focus on nutritional rehabilitation

In Phase 1, therapy aims to target food-related issues and behaviours that have been leading to weight loss in the context of malnourishment. Issues that are not related to nutritional rehabilitation may not be addressed until the eating problems are resolved. In the second or third session, the family will typically have a “meal” with the clinician/s. This session often demonstrates to parents the hold the eating disorder has over their child. The therapist will support parents to show the ED their persistence in helping their child get well. If there are siblings, they are encouraged to help support their sister or brother through what is typically an anxiety provoking process. Subsequent sessions encourage parents to act as a united front to support their child and create opportunities for weight restoration. Parents are often encouraged to take responsibility over meals so as to loosen the eating disorder’s foothold on their child. At the end of phase 1 it would be expected that the young person would notice a change in their physical symptoms (feeling cold, unable to concentrate or remember information) and have a sense of a more stable emotional state.



Phase 2 – Negotiating more independence

The young person will reach Phase 2 when their body is medically stable, which often occurs around the same time that their weight has been restored or near restored to an “ideal weight range”, determined by a physician. Another sign that signals the transition to Phase 2 is when your child is able to eat without constant supervision, encouragement or emotional distress. At this point, sessions may become fortnightly. Individual therapy or other input may become a possibility as your child’s brain becomes nourished. Although weight gain is still a priority, the focus of sessions will shift to consider how the young person can begin to take a normal amount of control over their eating for their developmental stage. Phase 2 also encourages the family to consider how to reinvest in their relationship with their child after discussions around food may have dominated most of Phase 1.



Phase 3 – Getting back to normal

The beginning of this phase is determined jointly by the family and the treatment team. Sessions may occur monthly or longer. The purpose is to ensure that the young person is able to maintain their weight independently and has taken control of their adolescent life once again. Issues faced by the young person and within the family system that arose before the eating disorder may come to the forefront to be addressed.

Adjuncts to Family Therapy

Sometimes Maudsley Family Based Therapy can get stuck due to issues that can arise at any point of therapy (including the very beginning)! If this is the case, your experienced therapist/s may begin to change the course or type of therapy to aid your family in progressing toward recovery. For instance, if there are significant emotional or psychological difficulties experienced by parents or the young person, individual therapy may also be recommended.

Benefits of the FBT process

The FBT process predominantly focuses on physical recovery before psychological recovery. This is both due to the seriousness of the medical complications experienced by young people with EDs, and also as malnourishment can impact on the young person's thinking and ability to recognise the seriousness of their condition.

At the start of therapy, due to the seriousness of the medical problems that are often present, FBT asks parents to take responsibility over all of the young person's food decisions to aid their physical health. This is often a foreign experience for parents as their child may have always been independent, driven and determined in all aspects of their lives. My experience has been that parents often benefit from the process as they learn about what EDs are, and how to help their loved ones who are struggling with a disease with one of the highest mortality rates of all mental health disorders. They learn how to offer practical support at meals and emotional support through anxiety or anger. They become more aware of how their child is being bullied by the ED.

FBT emphasises the importance of parental instinct and expertise in knowing your child and your family. In this way, FBT therapists encourage parents to make decisions that honour the unique ways that their family works.



During Phase 1, the young person often feels scared of weight gain and can feel unsure about whether they are “sick enough” to require nutritional rehabilitation. It is normal that the young person can feel reluctant and scared about engaging in the FBT process to begin with. As the process continues, the young person can feel empowered by talking about their experiences and feeling heard. They might experience a sense of relief that they are not carrying this burden alone, and realise that they are not to “blame” for their difficulties. As they nourish their bodies, it is common that their mood, energy levels improve, and they feel more connected to family, friends, and their enjoyed activities. Further, it can be powerful for the therapist to empathise with their pain while also holding hope that life can be more than just about food, weight, and shape.

A potential concern experienced by families is whether therapy can be customised to different family and cultural practices, particularly when the therapy was developed in a Western culture and it is being applied in an Asian context. FBT emphasises the importance of parental instinct and expertise in knowing your child and your family. In this way, FBT therapists encourage parents to make decisions that honour the unique ways that their family works.

For more information on the Maudsley approach and resources, please see:

For parents and families

<http://www.maudsleyparents.org/welcome.html>

<https://www.feast-ed.org/>

Lock, J., & Le Grange, D. (2015). Help your teenager beat an eating disorder. Guilford Publications.

<https://www.cci.health.wa.gov.au/Resources/Looking-After-Yourself/Disordered-Eating>

For clinicians

Rhodes, P. (2003). The Maudsley model of family therapy for children and adolescents with anorexia nervosa: Theory, clinical practice, and empirical support. *Australian and New Zealand journal of family therapy*, 24(4), 191-198. Lock, J., & Le Grange, D. (2015). Treatment manual for anorexia nervosa: A family-based approach. Guilford Publications.

When Disordered Eating Becomes An Eating Disorder

Amerie Baeg, Cindy Chan, Elsa Tan & Henny Tan

Eating disorders are often preceded by symptoms of disordered eating. Disordered eating is a term used for irregular eating behaviours, which are typically associated with body image concerns. Disordered eating is common and many individuals exhibit such symptoms at some point in their lives. Symptoms of disordered eating include rigid food choices or rituals for eating and exercising. These symptoms could be accompanied by feelings of anxiety, guilt and shame, and may negatively impact an individual's quality of life.

Eating disorders are often extreme cases of disordered eating (e.g., anorexia nervosa, bulimia nervosa). Individuals are diagnosed with an eating disorder only if they meet specific criteria related to body weight and eating behaviour. It is important to recognize the signs of disordered eating and seek help from a medical professional before these difficulties progress into an eating disorder.

Symptoms of Anorexia Nervosa

The symptoms of anorexia nervosa fall into four main categories. The physiological symptoms are related to starvation and malnutrition. The cognitive, emotional and behavioural symptoms are associated with an intense fear of gaining weight and distorted perception of body weight and body image. These symptoms are often further exacerbated by malnutrition.

Such symptoms may include, but are not limited to, the following:





Cognitive Symptoms

- Distorted perception of own weight, increased concern with body shape and size
- Any new obsessive routines (e.g., eating certain foods at certain times, excessive chewing, doesn't allow food to touch)
- Preoccupation with weight, food, calories, carbohydrates, fat, grams, and diets
- Increased difficulties with concentration

Emotional Symptoms

- Heightened emotional state tied to eating habits
- Extreme mood swings
- Moodiness, shakiness, and irritability

Behavioural Symptoms

- Extreme preoccupation with food
- Refusal to eat certain foods, progressing to restrictions against whole food categories (e.g., no fat or carbohydrates)
- Avoidance or discomfort in social situations that include eating
- Social withdrawal and isolation, withdrawal from usual friends and activities
- Frequent checking in mirror for perceived flaws in appearance
- Self-loathing behaviours and speech
- Becoming very secretive about food
- Increased physical activities
- Dresses in layers to hide weight loss or stay warm
- Maintains an excessive and rigid exercise regime, despite weather, fatigue, illness, or injury



Physiological Symptoms

- Noticeable fluctuations in weight
- Non-specific gastrointestinal complaints (e.g., constipation, acid reflux)
- Menstrual irregularities (e.g., missing periods)
- Dizziness, especially upon standing or fainting episodes
- Feeling cold all the time
- Sleep problems
- Dry skin and thinning hair
- Soft, downy hair covering the whole body
- Impaired immune functioning



Challenges in the Treatment of Eating Disorders

Diagnostic factors

Earlier in this issue, we explored some myths about eating disorders. Appearances in the realm of eating disorders can be deceiving. Disordered eating patterns are often unnoticed or unrecognized by families and school personnel alike. This is complicated by perceptions of how eating disorders “look like”. Delays in treatment often mean that the adolescent may be very ill by the time families seek help.

Comorbid conditions and complexity of cases

A large percentage of individuals with anorexia nervosa also suffer from comorbid conditions such as depressive disorders, anxiety disorders, and obsessive compulsive disorder. For example, treating an adolescent with anorexia nervosa who concurrently suffers from a depressive disorder increases the challenge two-fold. Along with medical instabilities, case presentations could be further complicated by emotional difficulties such as deliberate self-harm, risk-taking, and increased suicidality.

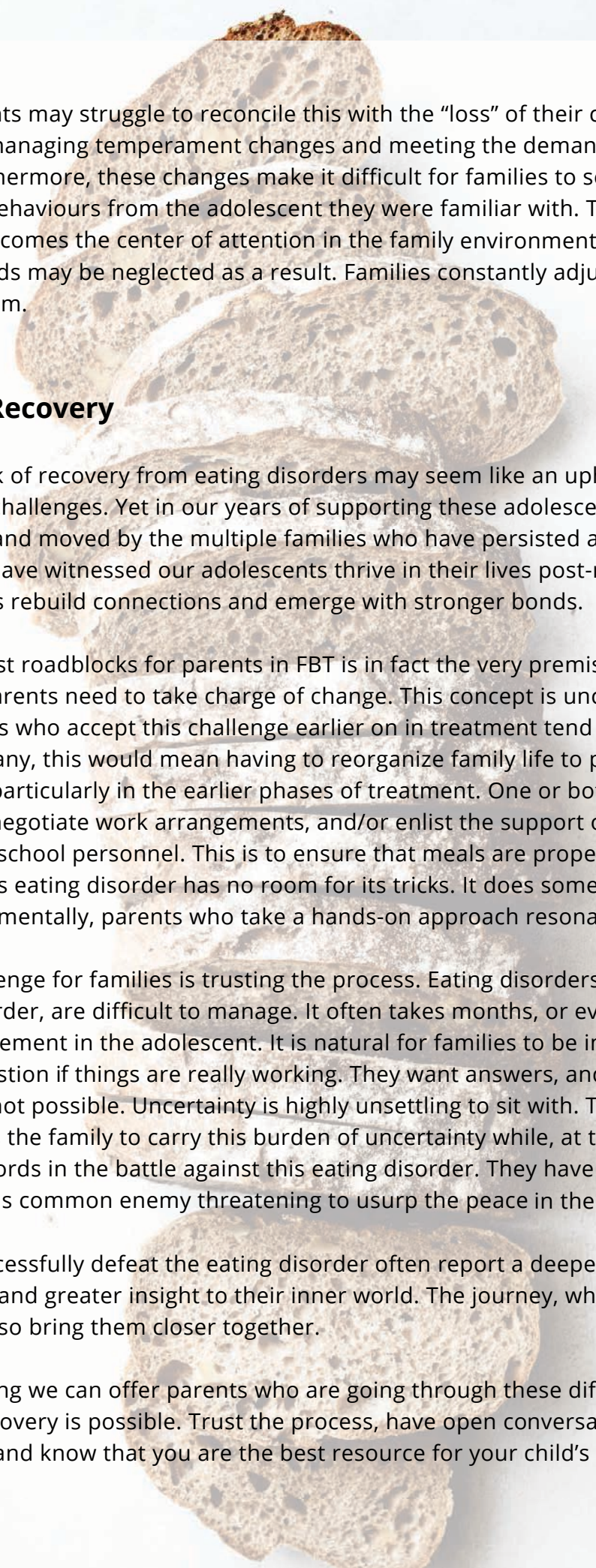
There is also an increasing pool of social media and web-based platforms that now connect those suffering from an eating disorder. Trending diets, exercise regimes, and secretive behaviours that may be counterproductive are now shared and encouraged by those who “understand” and share similar experiences. Families and clinicians have to keep abreast of these platforms, and be mindful of the evolving methods that maintain the disorder.

Cultural factors

The development of the Family Based Treatment (FBT) model was largely fine-tuned in Western populations. The presentation of eating disorders in other cultures may deviate from the common symptoms of food refusal and restriction. Research in Asian populations has shown that there is an increased likelihood of psychosomatisation of symptoms. Apart from the common observable complaints, adolescents may have complaints of physical symptoms such as stomachaches, bloatedness, and pain. This contributes to a misperception of the illness, as well as parental understanding and acceptance of the diagnosis.

Parental expectations

Food is medicine, and parents are seen as vital dispenser of medicine in the treatment of anorexia nervosa. On top of the family-therapist alliance, parental empowerment and involvement are two of the biggest contributing support factors in the treatment process. Amidst the backdrop of a typical medical model of help-seeking, some parents may struggle with the responsibility and their immense role in their child’s recovery. Parents often look to the healthcare professionals for “solutions” but may be less prepared or ambivalent about their abilities to help their child.



In addition, parents may struggle to reconcile this with the “loss” of their child. There is added stress of managing temperament changes and meeting the demands of increased supervision. Furthermore, these changes make it difficult for families to separate the eating disorder behaviours from the adolescent they were familiar with. The eating disorder often becomes the center of attention in the family environment. Siblings’ or parents’ own needs may be neglected as a result. Families constantly adjust and grieve the loss of freedom.

The Road to Recovery

The daunting task of recovery from eating disorders may seem like an uphill climb with insurmountable challenges. Yet in our years of supporting these adolescents, we have been impressed and moved by the multiple families who have persisted and never given up on hope. We have witnessed our adolescents thrive in their lives post-recovery and seen how families rebuild connections and emerge with stronger bonds.

One of the hardest roadblocks for parents in FBT is in fact the very premise of this approach: that parents need to take charge of change. This concept is uncomfortable for many and families who accept this challenge earlier on in treatment tend to have better outcomes. For many, this would mean having to reorganize family life to prioritize their child’s recovery, particularly in the earlier phases of treatment. One or both parents might have to renegotiate work arrangements, and/or enlist the support of close relatives or even school personnel. This is to ensure that meals are properly taken, and that the notorious eating disorder has no room for its tricks. It does sometimes take a village, but fundamentally, parents who take a hands-on approach resonate with FBT.

Another big challenge for families is trusting the process. Eating disorders, even without a co-morbid disorder, are difficult to manage. It often takes months, or even years, to see sustained improvement in the adolescent. It is natural for families to be impatient or anxious, and question if things are really working. They want answers, and they want it now – yet this is not possible. Uncertainty is highly unsettling to sit with. The process of recovery requires the family to carry this burden of uncertainty while, at the same time, wielding their swords in the battle against this eating disorder. They have to learn to stay as one against this common enemy threatening to usurp the peace in their family.

Families who successfully defeat the eating disorder often report a deeper bond with their adolescent, and greater insight to their inner world. The journey, while fraught with pain and tears, also bring them closer together.

If there is one thing we can offer parents who are going through these difficulties right now, it is this: recovery is possible. Trust the process, have open conversations with your treatment team, and know that you are the best resource for your child’s recovery.



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