

Gut Feelings.

A Hermeneutic Exploration of the Literature Crossing the
Boundaries Between the Mind and Gut.

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Abstract

Through a hermeneutic phenomenological review of the literature, this dissertation highlights the substantive and growing literature base for nutritional psychiatry showing the impact optimal nutrition and associated factors has in mental illness symptom reduction. It discusses an aetiological paradigm shift from the dominant dualistic model, to a whole-person multifactorial conceptualisation of mental illness and the growing calls for lifestyle factors to be addressed as a primary mode of treatment.

In light of this literature, the question is asked; what prevents us from nourishing ourselves in a way we know (and have always known) is profoundly life changing? An answer to this question emerges in the literature around the less explored unconscious relational dynamics between the mind and gut, and in particular the meta forces that perpetuate early relational trauma. The study finds that food choice is a complex social, cultural, political, environmental, and relational issue which should not be considered the burden of the individual. Rather, the entrenched dualistic divide within many of our institutions is seen to maintain and perpetuate our catastrophic mental health crisis. A concluding call is made for a shift to a whole-person paradigm that considers sociological contexts in psychotherapy practice, training and future research endeavours.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which, to a substantial extent, has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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Chapter One: Preparation

Why this? Why now?

My interest in holistic health started almost two decades ago when I trained to become a naturopath and medical herbalist. As I began to practice, I enjoyed watching my clients flourish, become empowered in their health and make lasting positive change; often when they had been told they had no further conventional treatment options. I was inspired by the wisdom and simplicity of the naturopathic approach and the innate ability of the human organism to correct itself given the right conditions. However, I quickly noticed that many of my clients needed to talk. Their descriptions of their symptoms often gave way to expression of a deeper story, of stress, feeling stuck and overwhelmed, of grief and the need for change. I felt ill equipped to manage these outpourings; and so, my interest in mental/emotional/spiritual suffering began, eventually leading me to study psychodynamic psychotherapy.

This dissertation represents a personal coming of full (hermeneutic) circle. The knowledge I gained all those years ago is being validated by medical science and creating a paradigm shift in how we view mental illness. This shift, coupled with my practice as a psychotherapist, has me poised to integrate my thinking and experience over the last 20 years and offer a holistic approach to mental health for my clients. I find it fascinating that since engaging with the literature on the topic of nutrition and gut health, the topic has been emerging in my clinic. Further, the information is making its way into the mainstream and people are curious. Complementary and alternative medicine use is high among psychotherapy clients (Elkins, Marcus, Rajab,

& Durgam, 2005) and, in my experience, clients are open to the idea that their suffering and healing is multifactorial.

I have always had a penchant for looking outside the box, for questioning the status quo, despite the discomfort being on the fringe brings. This discomfort has been front and centre as I navigate past and present knowledges. I am struck by the representation this work has for me, personally, as I interface with my newly acquired knowledge and roots in holism. Furthermore, the representation of the wider challenges traversing the arbitrary, yet entrenched, binary lines of dualism and integration, has entailed leaving the safety of my 'professional identity' as a psychodynamic psychotherapist and my conceptualisation of human suffering.

Something Needs to Change

Despite many advances in medical science, we are facing an alarming physical and mental health crisis;

Westernised societies are suffering from non-communicable diseases in epidemic proportions. In 2012, 68% of global deaths (38 million) were attributable to non-communicable diseases, with cardiovascular diseases the leading cause (Parletta et al., 2019). The 2013 Global Burden of Disease report identified that, in both developing and developed countries, major depressive disorder ranked as the second highest cause of years of life lost due to disability (YLD). From 1990 to 2013, YLD, attributed to mental and substance abuse disorders, increased by 45%, and depressive disorders increased by 53.4%, constituting a major burden of disease worldwide with tremendous associated personal, psychosocial and financial impacts. (Parletta et al., 2019 p.1).

Rapid urbanisation, globalisation, colonisation and an overall transition from traditional lifestyles (concerning diet, physical activity and social structures), have been linked to increases in depression and other mental disorders (Sarris et al., 2015). The major non-communicable diseases, along with mental disorders, are expected to cost the worldwide economy US\$47 trillion from 2014 to 2020 (Sarris et al., 2015). Further, Mörkl et al. (2018) contended:

Despite intensive efforts to improve mental health treatment, 15-30% of depressive patients exhibit therapy resistance to current 'state-of-the-art' treatments. Only one third of patients with depression reach complete remission with psychopharmacological therapy. For severe depression, combination therapies of antidepressants and psychotherapy are usually recommended, with only moderate effects. Typically, many of the prescribed drugs cause costly unwanted side effects, and achieve mild to moderate efficacy. (p.2.)

Our collective mental health is getting worse at an alarming rate. Looking at the statistics above, the current approach is having moderate effects, at best. Perhaps we need to think much wider in terms of our etiological conception and the treatments we offer to ease this worldwide burden (Sarris et al., 2015). If we acknowledge the complex bio-psycho-social contributors to mental illness and the current limited dualistic dominant paradigm, surely we must inevitably look for a more holistic response to this crisis; one that better acknowledges the complexity of the crisis and the limitations of our current model.

The Dualistic Divide

Medical science has long been operating from a paradigm of duality, where the mind is seen as separate from the body. Historically, Cartesian dualism played a fundamental role in wresting the practice of medicine away from church oversight (Gendle, 2016). This separation officially gave autonomy of the mind and body to

religion and medical science respectively (Gendle, 2016). However, by separating the mind from the body, dualistic medical practice prioritised objectivity and as a result overlooked patients' subjective experience and mental health as determinants in maintaining illness (Gendle, 2016). In Western medicine, traditional Cartesian dualism facilitates the biological reductionism of disease and encourages a dispassionate and mechanistic approach to patient care (Gendle, 2016).

We are starting to see a change in this thinking, where an integrated whole-person approach is slowly being seen as an essential shift in healthcare (Mörkl et al., 2018). The field of psycho-neuro-immunology is beginning to quantitatively understand how the psyche, nervous and immune systems interact to create and sustain dis-ease which is starting to give weight to the vast qualitative literature base that suggests we cannot separate the experience of the body and mind (Broom, 2001; Mörkl et al., 2018; O'Mahony et al., 2009; Payne, Levine, & Crane-Godreau, 2015; Röhricht, 2009; Van der Kolk, 2014).

This shift aligns with my own experience of a whole-person approach in treating people with complex physical illnesses. During my internship at Auckland Hospital Immunology Department, I worked under supervision from Dr Brian Broom. I was influenced by his views as an immunologist and psychotherapist; particularly, our remarkable ability to heal when we treat dis-ease from a whole-person, relational perspective (Broom, 1997, 2001). Broom (1997) has grappled with the philosophical complexities of dualism and suggests that a person is a cohesive unity, and it is this unified wholeness which needs to be emphasised continually. Instead of viewing the person as a collection of parts that need to be

integrated, we need to see the human person as a “physical/psychological/spiritual/social/ecological gestalt” (Broom, 1997 p.135). Thus, at any moment in time, this complex unity can be seen to be expressing itself, or potentially expressing itself in all of these dimensions (Broom, 1997). Broom (1997) looked at the question “which part is fundamental?” and observed entrenched duality from thinkers representing the aforementioned ‘parts’. He offered a seemingly simple statement that “the answer from holism is that all parts are fundamental” (Broom, year, p. 144). That is, one aspect of human expression should not be prioritised over the other. This is a challenging idea, especially when one has been trained to prioritise the ‘mind’ in treating mental illness. It suddenly makes the ground feel very unstable, yet opens up exciting possibilities.

The Wisdom of the “Gut”

There is something intuitive about the mind-gut connection. Most people can relate to heeding a warning by following ‘gut feelings’, having ‘butterflies in the stomach’, ‘sick with worry’ or feeling ‘punched in the gut’. The high co-morbidity between stress-related psychiatric symptoms and gastrointestinal disorders have long been recognised (Kaplan et al., 2015). Our bodies and mind are in constant communication and our understanding of this bi-directional interplay is opening up an exciting new toolbox that, in my view, psychotherapists should be aware of and reflect on.

Naturopathic treatment almost always treats the health of the digestive system as foundational to any treatment, regardless of presenting symptoms. So it has been with great enthusiasm that I meet the current literature linking the health of the gastrointestinal (GI) system and mental illness, as we inch slowly to a more integrated, holistic approach to human health. We live in a moment where our

aetiological understanding of mental disorders is creating a paradigm shift. The previous leap in biological understanding of mental illness led to psychopharmacology focusing on neurotransmitter function (e.g., serotonin depletion and SSRI's) (Bullmore, 2019).

The emerging conceptualisations of mental illness are centred around how inflammation, the microbiome, oxidative stress and impaired mitochondrial output affect brain function (Kaplan et al., 2015). The field of psycho-neuro-immunology is giving weight to the old adage “you are what you eat” and perhaps, adding to that, we are what we eat, experience, think and feel. There is a growing body of evidence linking nutritional status and mental health improvement and prevention (Mörkl et al., 2018), providing validation for something we have always known but somehow lost the importance of. If there is an effective, accessible tool available with no side effects within our scope of practice, why would we not introduce this into our work in the best interest of our clients?

Do as I Say, Not as I Do

As I have immersed myself in the literature, I have reflected on my own relationship with food, which has not been as straightforward as one would expect given my training in the area. I knew how I should eat but often found myself mindlessly eating deeply comforting, yet detrimental, foods. At the time, I raised this dysfunctional relationship with my therapist who responded, “that will come later”. I remember feeling the gravity of my concern was dismissed. In hindsight, I imagine she felt the therapeutic process I was in was a priority and that my eating habits were a secondary behaviour associated with that. However, my eating did not magically align with my therapeutic progress. Even after many more years of psychotherapy,

there was still something elusive about my choices. Something was missed in that therapeutic moment.

The concurrent illumination of my own dynamics, while writing this dissertation, have helped guide the trajectory of my exploration. More importantly, it has facilitated a deeper understanding of the relationship I have with myself, a welcome and deeply meaningful process.

Conclusions

As preparation for the 'consumption' of the literature ahead, I have located my subjective positioning from which I conduct this dissertation. I highlighted the startling mental crisis we are in, discussed the entrenched dualistic divide in medical science and introduced the emerging field of nutritional psychiatry. I shared my personal incongruence in my relationship with food and questioned why it was skipped over by my therapist at the time.

My original question for this dissertation was "What are the links between mental illness and the gut?" My aim was to clarify, for myself and interested practitioners, the emerging literature to inform and stimulate thinking around if and how it might apply in psychotherapy practice. However, as I immersed myself in the literature and the hermeneutic process I came to a core question that bridged both worlds; "If we know a healthy diet can be life changing, why do we not do it?" The emergence of this second question from the literature led me to initiate a secondary inquiry into early relational dynamics and our ability to nourish and regulate ourselves. The search uncovered a forgotten or overlooked aspect in the literature of this highly complex human behaviour that has been the focus of much exploration; yet, remains elusive to both lay people and researchers alike (Köster & Mojet, 2015).

The topic of dualism and whole person healthcare is complex and challenging. It has been the focus of much philosophical discussion and raises questions around how we understand disease, humanness and, therefore, healing. Though this warrants a depth of thought and discussion outside the scope of this dissertation, I am aware that investigating the role of the gut in mental illness is, in itself, a dualistic endeavour. However to understand the whole, it seems we must investigate the parts to consume, digest and assimilate, to then integrate back to the whole, as reflected by the hermeneutic process described in the next chapter. It seems the contradiction of isolating parts to understand the whole is inescapable and an endeavour I attempt in this work.

Much has been written about eating disorders from many therapeutic perspectives. For this enquiry, I focussed on those that sit within the continuum of disordered eating on a less pathologic, yet detrimental, scale to address dietary behaviour in a broader psychotherapeutic population.

Chapter 2: Method & Methodology

Interpretivist Paradigm

When choosing a paradigm and methodology I needed to feel engaged in a way that felt congruent to my professional and personal worldview, and allowed my own interpretation and meaning to emerge. Psychotherapy is a dialectical, dynamic process where the intersubjective space, felt sense, interpretation and understanding allow new meaning and depth to emerge from previously unconsidered parts. Thus, coupled with my own belief that the human experience cannot be reduced or quantified, the pursuit of one final truth is futile and limiting. Hence, I was led to explore the literature from an interpretivist paradigm where intersubjectivity, reflexivity and meaning making are prioritised (Grant & Giddings, 2002).

Methodology

Within this interpretivist paradigm, given the nature of my research question, I believed a hermeneutic approach best served my skills, purpose and research question. As a novice researcher and passionate clinician, I had to engage with the texts in a way that excited me and gave them life; for me, the hermeneutic approach allowed this freedom and encouraged me to relate to the literature as I would with a client, honouring emergence, the intersubjective space and open ended curiosity. Hermeneutics seeks to “reveal aspects of phenomena that are rarely noticed” and “illuminate essential, yet forgotten dimensions” (Crowther, Ironside, Spence, & Smythe, 2017, p.827). The researcher develops an attunement (Crowther, Ironside, Spence, & Smythe, 2017, p.1391) to ponder unfolding and

evolving questions and a way of being that invites the essence of the data to emerge (Smythe, 2012), much like the therapeutic relationship.

The modern use of hermeneutics dates back to the 17th century where it was used as a method to interpret biblical texts. Gradually, hermeneutics evolved to consider a broader range of texts and eventually to analysing the conditions in which understanding occurs and the process by which hermeneutic thinking takes place (Smythe & Spence, 2012). Hermeneutics in the 19th century was focussed on reconstructing the original meaning of historical texts, to draw forth the intended meaning from the author (McManus Holroyd, 2007). Modern hermeneutics deals with the question of human understanding in general, and argues that self-understanding and world understanding are intertwined and inseparable (Boell & Cecez-Kecmanovic, 2014).

Contemporary Hermeneutics

Twentieth century philosophers, in particular Dilthey, Heidegger and Gadamer, made an ontological turn in the development of hermeneutics away from “reasoning one’s way back to the past to having a present involvement in what is said” (Smythe & Spence, 2012 p.3); including, acknowledging our preunderstanding and subjectivity. Heidegger changed the view of hermeneutics beyond a methodology for understanding original meaning. For Heidegger, “understanding is not only a cognitive process but the practical mode of human existence, embedded in the tradition of being and universal to all human activity” (Boell & Cecez-Kecmanovic, 2014 p.7). For Gadamer, a text is always understood and translated

within a socio-historical and cultural context. In Gadamer's words, "the standpoint beyond any standpoint ... is pure illusion" (Boell & Cecez-Kecmanovic, 2014, p. 7).

Heidegger stated, "interpretation is not just a meaning; it is grounded in a whole set of background practices, a kind of pre-understanding that makes knowing possible" (Boell & Cecez-Kecmanovic, 2014, p. 7). Smyth and Spence (2012) highlighted;

Through being in the world, we acquire an orientation that is interwoven, inseparably, with our history and culture. We inherit traditions, both formally and informally, through language and the processes of socialisation that mean we cannot stand outside the phenomenon in question because embedded in us are understandings derived from these previous experiences. (p. 2)

It is, therefore, impossible to pretend we are interpreting from an objective stance as we always bring our past understanding and experiences (Smythe & Spence, 2012). It is through acknowledging our pre-understandings that we engage in the "restless to and fro of the play between both our own already-there understandings and those that may be seen or unseen within the text" (Smythe & Spence, 2012 p.5). Smythe et al. (2008) noted;

Gadamer talked of the play essential to the wheel of a bicycle. If the nut is screwed too tight the wheel cannot turn, yet if too loose there is a danger the wheel will fall off. In the leeway, the space between structure and freedom, there is room to play, to respond to the unrest and think again. (p.1391)

Engaging hermeneutically requires equal parts activity and tension as it does letting go and letting come. There is an embodied process of inclining toward texts that speak to the researcher, "a feeling, a knowing, a readiness to read and re-read" (Smythe & Spence, 2012 p.6). This is a key part of the dialogic process between

reader and text, we incline towards texts that incline towards us (Smythe & Spence, 2012).

Gadamer (2001, as quoted in Smythe and Spence 2012) suggested that hermeneutics “be practiced ...descriptively, creatively – intuitively and in a concretising manner...concepts ought to come forward in movements of thought springing from the spirit of language and the power of intuition” (p.8). “In this way, understanding spirals, grows, becomes confused, gains clarity, holds contradictions and recognises paradox” (Smythe & Spence, 2012 p.8).

It was in the spaces between, in the moments of letting go, that I experienced moments of vision, described by hermeneutic scholars as the ‘gift of grace’. It means handing oneself over to the process to allow the coming of a thought while actively seeking new thoughts (Smythe & Spence, 2012). It was not until I was able to relax into the hermeneutic way of gaining knowledge that these ‘graced moments’ occurred. When they did, they were profound and became instrumental moments in my interpretation of the literature. As Smythe and Spence (2012) said it is “the interplay of seeking and waiting, of writing and pondering, of knowing and doubting, that understandings can start to take shape” (p. 9). It took time to find my rhythm and trust that the thoughts would come in what felt, at times, like a confusing boundary-less web of data. When the ‘aha’ moments occurred, they were very much connected to a gut feeling which is how I knew there was life in where I was going and caused a recalibration allowing me to find my bearings. Once I understood the philosophy, I realised I had been in a hermeneutic process my entire life and this dissertation is an assimilation of the parts of knowledge I have been collecting over the last two decades.

Method – Literature Review

To carry out my research I conducted a literature review within the described hermeneutic framework. A hermeneutic literature review does not seek to cover every piece of literature written on a subject to determine any fixed or final truth; rather, a constant reinterpretation leading to a deeper, more comprehensive understanding (Boell & Cecez-Kecmanovic, 2010). In contrast to systematic literature reviews, a hermeneutic approach holds that a deeper understanding of the research problem is gained via a process of reflection and reflexivity as the literature review progresses. As the researcher's engagement with the literature deepens, she becomes clearer as to which questions are more relevant and need attention (Boell & Cecez-Kecmanovic, 2010). This process allows diversions into unanticipated areas normally discouraged when conducting a systematic literature review (Boell & Cecez-Kecmanovic, 2010).

Hermeneutic Circle

Hermeneutics sees the process of understanding as generally open ended and circular in nature (Boell & Cecez-Kecmanovic, 2010). Through searching, reading and encircling particular texts within a defined body of literature, we begin to understand the parts which feed back to and shift our understanding of the whole. I am struck by the reflection of the whole-person perspective aligning phenomenologically with hermeneutics, likewise the alignment between dualism and positivism.

During the present study, I came to realise that the hermeneutic process I was engaging with reflected an organic process analogous to the "gut" processes I was investigating. Specifically, the phases of "preparation", "consumption",

“digestion” and “assimilation”. I will expand on this as I draw on Boell and Cecez-Kecmanovic’s (2010) iteration of the hermeneutic circle below.

Searching and Sorting - Preparation

According to Heidegger, the way we enter the hermeneutic circle sets the context of our review of the literature (Boell & Cecez-Kecmanovic, 2014) and is not bound by starting with a systematic review (Smythe & Spence, 2012). The entry point to this hermeneutic circle occurred two years prior to writing this dissertation when I attended a seminar at Massey University with Professor Julia Rucklidge. The seminar gave a concise overview of where nutritional psychiatry had been and where it was going. It gave me an in-person review with a highly valuable set of notes with extensive referencing. This was a grounding document for the first cycle of literature. It led me to researcher Felice Jacka and the SMILES trial which had not been published at the time of the seminar. Felice Jacka and Julia Rucklidge are researchers spearheading diet and micronutrient research respectively, I found following their references a concise and fruitful way to search for data.

An initial search linking diet with psychotherapy generated underwhelming (almost nil) results. I decided to trust the process and wait for links to emerge through my thinking as opposed to actively searching for them at the beginning. By the time my second line of questioning emerged I had honed my searching skills and was able to draw data from areas associated with psychotherapy such as attachment and emotion regulation. As my thoughts were refined and generated, so was my ability to find specific data. I continued with ‘reference tracking’ (Boell & Cecez-Kecmanovic, 2010) throughout my literature review, occasionally coming

across a review article that drew the parts together and highlighted papers I may have missed or overlooked.

Preparation involved gathering the ingredients and ensuring I had the tools to create a meal. I read the recipe before I began cooking to give me an idea of what I needed to buy and techniques required to cook.

Selecting and Acquiring - Consumption

As my skills sharpened, I became adept at identifying texts that would 'spring forward' (Smythe & Spence, 2012), and noticed a deadening and confusion when getting lost in hard data or heading off track. I found reviews and conclusions helped me make sense of the dense statistics in the positivist data. I selected articles that kept my thinking moving where meaning was readily accessible. When realising the breadth of the research area I came to, in response to my question that emerged, I had to exclude a vast array of literature pertaining to determinants of food choice and keep it strictly to my specific area of unconscious relational aspects of food choice. This was difficult at first as I had to familiarise myself with an unexpected large body of literature to then discern my direction. This refinement of direction was consolidated by a graced moment (Smythe & Spence, 2012), where a thought about food as a transitional object came seemingly out of nowhere (in a most inopportune moment) like a bolt of lightning, to then be confirmed by a book chapter emerging with this very idea the next day. The letting come and intuitive engagement guided me to texts that became 'wise mentors' in how they provoked and expanded thinking and insight (Smythe & Spence, 2012).

Consuming the literature was both pleasurable and a chore. Some parts were too hard to and dry to chew. If I ate too quickly, it was uncomfortable and too

slowly the meal got cold. At times the meal was too big, so I made the difficult decision to leave some on my plate which at times felt like a disappointing waste. I needed to eat mindfully and listen to my body.

Reading, Identifying, Refining - Digestion

As I read and re-read and built a dialogic relationship with texts, I noticed my understanding shifting. Sometimes a previously overlooked paper became instrumental or I would find new meaning in what I had already read. As my understanding shifted and ideas started to refine, I would then return to searching and sorting based on the development of the ideas. I kept a hard cover diary throughout my research process recording the development of my understanding, key papers, supervision notes and graced moments (gut feelings - which need not have been recorded as they are embedded in felt sense). This became a living text and a grounding force in what, at times felt like a limitless ever shifting expanse.

Digestion of the meal was satiating; however, due to the size of the meal and consuming parts for the first time I needed to 'rest and digest'. Moving too quickly caused indigestion and I occasionally needed an aperitif to aid in the breakdown of nutrients.

Analysis and Interpretation

The diary of the development of my thinking became the map for this dissertation. As I moved between parts of the literature and parts of the circle and parts of the whole-person my thinking began to integrate and my argument began to develop. Writing became an integral part of clarifying my thoughts and interpretation, and was guided by the felt sense of going with the literature intuitively. Interestingly, as

I was in this hermeneutic to and fro between parts and the whole, I was also experiencing and observing an embodied enactment of my research topic. My own unconscious relationship with food was activated in response to the stress, the unknowable and a pervasive sense of doubt. I found myself self-soothing with food in a way that was heightened and clearer than ever before. This embodied process became an important part of understanding myself and the literature which gave way to some deep reflection and guidance, Smythe and Spence (2012) confirm that “knowing is an embodied experience” (p.10). This embodiment gave a felt sense to the resonance of ‘being’ with the literature. It made the literature feel acutely human and was an important part of understanding, interpreting and analysing what I was reading.

Assimilation of the breakdown of nutrients happened without conscious control. Once I had done the hard work of preparing, consuming and digesting the meal, the body took what it needed to generate new tissue.

Knowing When to Finish

Leaving the hermeneutic circle is a challenge given its circularity and potentially having no end (Boell & Cecez-Kecmanovic, 2010). Boell and Cecez-Kecmanovic (2014) highlighted ending when the researcher hits a saturation point. I am not sure I reached a saturation point in my research area. I identified emergent facets of the literature that I felt very enthused to explore; however, due to time and size restraints, these had to be contained. I decided to leave the hermeneutic circle when I felt satisfied with the growth in my understanding. Smythe and Spence (2012) referred to ending as a moment of synthesis where the journey must stop, which is how I justified leaving at a point that felt inevitably

incomplete. The data chapters that follow are structured to match the organic process of digestion as it occurred.

CONSUMPTION

Chapter 3: We Are What We Eat

As I consumed, digested and assimilated the literature, a number of key themes emerged in response to my research question: “If we know a healthy diet can be life changing, why do we not do it?”

Overfed and Undernourished

Dietary advice is confusing, conflicting and complicated (Terry & Reeves, 2015). We are disconnected from our bodies and food sources which leaves us disempowered and overwhelmed. The modern western diet is characterised by high intakes of refined carbohydrates (sugars, starches), inflammatory vegetable oils, trans-fats, processed, fried foods and lower in vitamins and minerals (Rucklidge, 2016).

Our diet has changed drastically and rapidly over the last century; the rate of which is unprecedented (Rucklidge, 2016). Industrialisation led to an abundance of refined grains (flours) and vegetable oils. Urbanisation and globalisation have necessitated intensified farming practices leading to depleted soils (depleted produce), and reduced biodiversity (Rucklidge, 2016). The use of mineral chelating glyphosate herbicides (roundup) have been shown to immobilise (therefore reduce) essential minerals like iron, manganese and nickel (Rucklidge, 2016). Most people consuming a western diet are not reaching adequate levels of micronutrients (Mörkl et al., 2018). We are bombarded by the billion dollar food industry artfully seducing us into eating high calorie, nutrient depleted, addictive, comforting convenient comfort foods laden with additives, dyes and preservatives (Rucklidge, 2016). Complex socio-economic factors also impact dietary choices and accessibility

to quality food (Adams, 2010). As we become more time poor, disconnected and disenfranchised, convenience is king—but at what cost?

Nutrition and Mental Health - Not a New Idea

The idea that what we eat affects our cognitive functioning is not new. Professor Julia Rucklidge (2016) pointed out ancient thinking on this topic. From the time of the Babylonian exile of 586-538 BCE, after the Babylonians conquered Jerusalem, Daniel, one of the exiles at the court of Nebuchadnezzar II (Babylonian ruler who lived from 605-562 BCE), became a high government official known for delivering various visions. The very first chapter of the *Book of Daniel* addresses nutrition.

King Nebuchadnezzar told his aide to select some Israeli fellows and some Babylonian royals – “youths in whom was no blemish, but fair to look on, and skilful in all wisdom and knowledge” (as cited in Rucklidge, 2016, p. 6). The King wanted to give them a daily portion of the King’s food and wine for three years (we do not know his motivation). Daniel did not want to ‘defile’ himself with that type of diet. He was worried about telling the King that one of the Israelis had said no; so, Daniel proposed a 10 day clinical trial of broad spectrum nutrition and asked that he and his friends consume only pulse and water and then compare them to the royal youth eating royal food.

At the end of 10 days their countenances appeared fairer, and they were fatter in flesh than all the youths that did eat of the Kings food... ..and in all matters of wisdom and understanding, that the King inquired of them, he found them ten times better. (as cited in Rucklidge, 2016 p.6)

That is, brain function was reported to be affected by the nutrient depletion.

Two hundred years after the Babylon exile, Hippocrates was famously quoted “Let food be thy medicine, and medicine be thy food” (Rucklidge, 2016). In 1861, Mrs Beeton published a 1112 paged tome on running a household in Victorian Britain. It largely included recipes and sections on how to manage children, properties and servants. A large proportion is dedicated to keeping well. Mrs Beeton was mostly concerned with physical symptoms but did acknowledge mental unrest;

If we consider the amount of ill-temper, despondency, and general unhappiness which arises from want of proper digestion and assimilation of our food, it seems obviously well worthwhile to put forth every effort and undergo any sacrifice, for the purpose of avoiding indigestion, with its resulting bodily ills (Beeton, as cited in Rucklidge, 2016 p.6).

In 1910, the ‘People’s Home Library’ was a source of in-depth practical knowledge for North Americans and a guide for families and health care providers. It stated, “the number one cause of acquired insanity was imperfect nutrition” (as cited in Rucklidge, 2016 p.7). Wisdom and observations correlating diet and mental health were evident in Biblical, Greek and Pioneer homesteading times. The idea that nutrition affects our mental health is by no means new. During the 21st century, interest in nutritional treatments diminished with the growth and promise of psychiatric medications (Rucklidge & Kaplan, 2013).

Nutritional Psychiatry - Evidence Supporting Wisdom?

Nutrient depletion and psychological decline

A rare insight into the effects of nutrient depletion on mental health occurred during World War II, when 36 conscientious objectors participated in a study of human starvation. The intention of the “Minnesota starvation study” was to gain insight into re-feeding populations that were subjected to starvation (Keys, Brožek,

Henschel, Mickelsen, & Taylor, 1950). Fascinating observations on their mental health emerged. The psychological impacts of the 24 week nutrient depletion included; depression, hysteria, irritability, self-mutilation, apathy, lethargy, social withdrawal and inability to concentrate—all symptoms of various diagnosable mental illnesses directly linked to a decline in nutritional status. When we consider the brain only amounts to 2% of our body weight, yet consumes 20-40% of our metabolism (nutrients) (Rucklidge, 2016), it is easier to understand these quite alarming symptoms that were observed.

Food glorious food

There is now extensive observational evidence, applied across a diverse range of population groups, contending that poor diet increases risk for depression (Jacka et al., 2017; O'Neil et al., 2014; Parletta et al., 2019; Sarris et al., 2015). A healthy diet is defined differently depending on culture and region, however, in general terms, observational studies have confirmed that diets higher in plant foods such as vegetables, fruits, legumes and whole grain with lean proteins, including fish, are associated with a reduced risk for depression (Jacka et al., 2017). Conversely, diets high in processed and sugary foods are associated with an increased risk of depression (Jacka et al., 2017). Importantly, these correlations are observed to occur independently of socioeconomic and education status and not explained by reverse causality (Jacka et al., 2017).

Recently, a diet high in fruit and vegetables, fish and whole grains, was confirmed in a meta-analysis to be associated with a reduced likelihood of depression in adults (Lai et al., 2013). Similarly, a systematic review confirmed

relationships between unhealthful dietary patterns and poorer mental health in children and adolescents (Jacka et al., 2017; O'Neil et al., 2014).

Stahl, Albert, Dew, Lockovich, and Reynolds (2014) conducted a dietary intervention study in depressed older adults. Participants receiving dietary coaching experienced a significant reduction in major depressive episodes and showed a 40–50% decrease in depressive symptoms. These improvements were sustained over two years and patients experienced enhanced overall wellbeing (Stahl et al., 2014). The nutritional protocol was shown to be as effective as psychotherapeutic treatment (Mörkl et al., 2018).

Further, an Italian study showed positive effects of nutritional treatment and psychoeducation in patients with affective disorders and psychosis. The dietary intervention group showed significant improvements in symptom severity and sleep quality in comparison to the psychoeducation group (Mörkl et al., 2018).

Convincing associations have been made between the quality of women's diets during pregnancy and the risk for emotional dysregulation in children, indicating intergenerational impacts of poor nutrition (Jacka et al., 2013; Pina-Camacho, Jensen, Gaysina, & Barker, 2015; Steenweg-de Graaff et al., 2014). Potential mechanisms of action for the positive results include brain plasticity, the gut microbiota and inflammatory and oxidative stress pathways (Jacka et al., 2017), which will be expanded on in upcoming sections.

The idea that dietary interventions could improve brain plasticity and emotion regulation is incredibly exciting to me as a practicing psychotherapist, particularly when thinking about the inhibitory effect relational trauma has on the brain (Schore, 2009, 2011; Van der Kolk, 2014). The potential for improving brain

plasticity (Jacka, Cherbuin, Anstey, Sachdev, & Butterworth, 2015) and, therefore, potentially maximising the neuro-generative and emotional regulatory effects of the therapeutic relationship (Schoore, 2009, 2011) warrants attention. Could optimal nutrition improve the reparative effects of psychotherapy?

With clear evidence of a causal relationship between diet quality and mental illness prevention and risk reduction, the focus is now shifting to the treatment of existing mental disorders (particularly depression and anxiety). Two randomised controlled trials have been conducted to date, the 'SMILES' trial (Jacka et al., 2017) and the 'HELFIMED' trial (Parletta et al., 2019).

'SMILES' was a single blind, randomised controlled trial of dietary intervention in mild to moderately depressed adults. The dietary support group showed significant reduction in depressive symptoms on the MADRS scale at 12 weeks from baseline compared to the social support group (Jacka et al., 2017). Astoundingly, 32.3% of individuals in the dietary support group achieved complete remission (Mörkl et al., 2018). Implications for the SMILES study were significant and reported as follows:

Recent updates to clinical guidelines for the treatment of mood disorders in Australia have, in recognition of the emerging and established data regarding the importance of health behaviours (diet, exercise, sleep and smoking) to mood disorders, *made explicit recommendations regarding the need to address these behaviours as a first step in the treatment of patients.* (Jacka et al., 2017, p. 10)

The Mediterranean diet implemented in the SMILES trial was cost effective and adherence was high (Chatterton et al., 2018). Again, possible mechanisms of action are being linked to the aforementioned impact on inflammation, microbiome, oxidation, mitochondrial output and neural plasticity (Mörkl et al.,

2018; Sarris et al., 2015). Additional dietary imbalances have been highlighted for producing a range of mental and emotional disturbance, such as fluctuating blood-sugar being linked to anxiety, mood swings, depression and forgetfulness (Terry & Reeves, 2015). Food intolerance and allergies are also associated with mood swings and depression as well as aggression and sleeping difficulties (Terry & Reeves, 2015). It is worthy to note that improved mental health scores in the SMILES trial occurred irrespective of weight loss (Jacka et al., 2017).

The SMILES trial received critical feedback suggesting managing expectation bias and difficulty in blinding was responsible for the large effect size (Molendijk, Fried, & Van der Does, 2018). Response to the critique was published as follows:

While we acknowledge the issue of expectation bias in lifestyle intervention trials and indeed discuss this as a key limitation in our paper, we observed a strong correlation between dietary change and change in depression scores, which we argue is consistent with a causal effect and we believe unlikely to be an artefact of inadequate blinding. (Jacka et al., 2018, p. 1)

Most recently, the results from SMILES have been confirmed by the HELFIMED trial. It showed undeniable improvement in those on the Mediterranean diet than those that were not (despite there being an improvement across both groups due to the social support aspect of the study) (Parletta et al., 2019).

The magnitude of benefit was large, with 60% fewer persons experiencing extremely severe levels of depression, 72% of anxiety and 69% of stress in the MedDiet group. The improved mental health in both groups is noteworthy, given that the Mediterranean diet is not just about healthy food – it is also about lifestyle, and this has been factored into the Mediterranean diet pyramid by including cultural and lifestyle elements such as conviviality and culinary activities. (Parletta et al., 2019, p. 13)

The Mediterranean diet pyramid can be seen in Figure 1 (p. 27). Whilst there are multiple biological mechanisms well described in the link between diet and mental

health improvement it seems we cannot ignore the importance of preparing, cooking and sharing a meal. Food not only provides essential nutrients for essential biological processes but it is the conduit for bringing people together and providing a sense of community, depicted in the base of the pyramid.

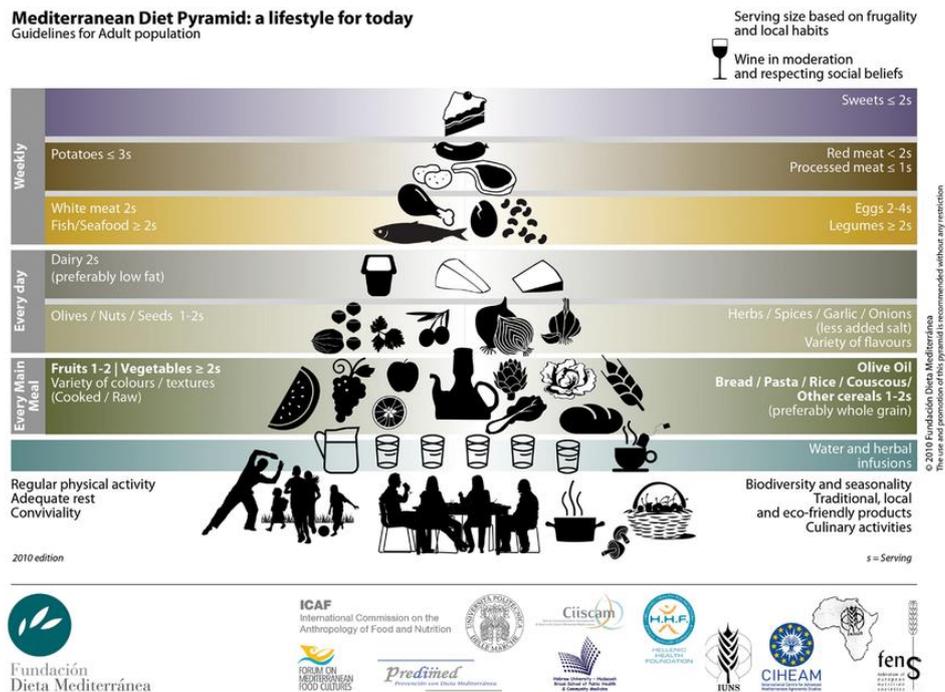


Figure 1. The Mediterranean diet pyramid from: Mediterranean diet: *from a healthful diet to a sustainable dietary pattern.* Dernini. S and Berry. E.M. 2015 *Frontiers in nutrition.* p.3.

Micronutrient supplementation

As we have seen from the above literature, eating a whole food diet can substantially reduce risk and improve outcomes for those suffering from mental illness, particularly anxiety and depression. Given the correlation between improved diet and positive mental health outcomes, there is significant attention on micronutrient supplementation. It is considered most people are not reaching optimal levels of various crucial micronutrients needed for essential neurobiological

processes (Mörkl et al., 2018). It is also suggested that people suffering from mental illness may have an increased demand on nutrient load via in-born errors of metabolism, biological mechanisms of the illness or impaired gut function reducing digestion and assimilation (Rucklidge & Kaplan, 2013). Given the challenges of changing one's diet to meet a therapeutic outcome, especially when depressed, there is question around whether micronutrient supplementation can bypass this challenge and be a well-tolerated effective tool for mental illness treatment. Meredith et al. (2018) pointed out the need for improved treatment options given the mild to moderate effects of antidepressant pharmaceuticals and their costly side effects, along with the challenges of accessing therapy for the wider population.

Whilst there are data utilising single high dose micronutrients, given the complexity of biological processes, it makes better physiological sense to utilise broad spectrum micronutrients (Kaplan et al., 2015). Kaplan et al., summarise the data in saying

A recent systematic review has shown substantial literature on the use of broad-based formulas for the treatment of symptoms ranging from depression to stress to antisocial behaviours; and, overall, the results across different designs, including randomized controlled trials, case studies, case series, case-control studies and database analyses are generally positive (Kaplan et al., 2015 p.9).

For instance, micronutrient supplementation has been shown in four separate randomized controlled trials to reduce violent and antisocial behaviour in incarcerated groups. The decrease in offending requiring discipline in the micronutrient groups ranged from 28.5-47% across the trials (Kaplan et al., 2015).

The exploration of micronutrient supplementation is a new area of research that is gaining a high level of interest. It is clear micronutrient supplementation is following the trends of improved dietary nutrition in mental illness (Rucklidge & Kaplan, 2013) and there is potential to make significant improvements in quality of life for a wide range of people, including those on the autistic spectrum, with ADHD, schizophrenia and psychosis (Rucklidge & Kaplan, 2013). Fascinating results have been published showing reduction of post-traumatic stress disorder symptoms and increased resilience after the Christchurch earthquakes (Kaplan et al., 2015), showing adequate nutrient load can improve resistance to traumatic events and reduce long term debilitating consequences. Case studies showing life changing effects in people grappling with ADHD, bi-polar, aggressive behaviour and obsessive compulsive disorder point to the need for more robust and repeatable studies from which to ground and apply these impressive observations (Rucklidge, 2009; Rucklidge & Harrison, 2014). There are currently two randomized controlled trials being conducted in New Zealand assessing the effects micronutrients have on the mental health of new mothers and their babies, and on mood disorders in un-medicated adults (Meredith et al., 2018).

An exciting element of this work is that nutrients are well tolerated and effects seem to improve with time on the supplements. However, more work needs to be conducted on long term effects and clinical applicability. Undeniably, preliminary micronutrient research is impressive and mounting (Kaplan et al., 2015).

The microbiome – an internal eco-system

Awareness of the vital role our intestinal bacteria play in maintaining homeostasis has been increasing in recent years. When looking at diet and mental health, a

major link between the two is this vast internal population we host. “The human gastrointestinal tract is inhabited by 1×10^{13} to 1×10^{14} microorganisms—more than 10 times that of the number of human cells in our bodies and containing 150 times as many genes as our genome” (Cryan & Dinan, 2012 p.2). It consists of more than 1000 species and over 7000 strains, and has been referred to as the “forgotten organ” (Cryan & Dinan, 2012 p.2). The microbiome has been well studied and is now known to play a vital role in the “development and functionality of innate and adaptive immune responses, and in regulating gut motility, intestinal barrier, nutrient absorption and fat distribution” (Cryan & Dinan, 2012 p.2). Diet is one of the key ways to affect microbiota composition which in turn synthesises essential nutrients, modulates the immune system, stress response and inflammation. Factors known to create dysbiosis (an imbalance between beneficial and detrimental bacteria) include poor diet, stress, antibiotic use and infectious disease. Inoculation commences at (vaginal) birth and composition changes as we age (Cryan & Dinan, 2012).

The microbiota are recognised as an important node in the gut-brain axis. It is thought the microbiota and the central nervous system communicate with each other in a bi-directional mutualistic interplay. A key pathway for this communication is via the vagal nerve, although the exact mechanisms are still being understood. The vagal nerve is the major nerve of the parasympathetic nervous system. It innervates every major organ and has both afferent and efferent pathways (sends and receives information). It regulates several organ functions such as bronchial restriction, heart rate and gut motility (consider the connection between sympathetic activation i.e., anxiety and the effect on breathing and

digestive symptoms). Activation of the vagal nerve has shown to have marked anti-inflammatory effects, the significance of which I will touch on in the next chapter. Steven Porges (2011) discussed the importance of the vagal nerve at length in his polyvagal theory. Readers interested in embodied trauma work will benefit from his thinking in this area.

It has long been known that stress and the resultant effect on the HPA (hypothalamic-pituitary-adrenal) axis effects the composition of the microbiome. There is evidence of early maternal separation in rhesus monkeys and rats causing acute changes in the microbiome and susceptibility to HPA dysfunction later in life (Cryan & Dinan, 2012). Chronic stress in adulthood also affects gut microbial composition. The exposure to repeated stress affects the microbiome which correlates with inflammatory markers (as discussed below). Chronic stress and decreased microbiota both lead to increased intestinal permeability which causes bacterial translocation across the intestinal wall (leaky gut). This creates an immune response which has also been linked to stress related psychiatric disorders such as depression (Cryan & Dinan, 2012).

Supplementation with probiotics can reverse intestinal permeability by reducing barrier leakiness, this underlies its capacity to reverse HPA axis activation, further confirming the importance of the gut-brain axis in the stress response (Cryan & Dinan, 2012). Probiotics have also been shown to be effective in reducing symptoms of irritable bowel syndrome and clinical evidence shows decreases in stress response, anxiety and improved mood in sufferers of IBS and chronic fatigue (Cryan & Dinan, 2012). The data clearly demonstrate the importance of the microbiome in normal development of the HPA axis and highlights that it must

occur within a critical window in early life to ensure normal stress response development (Cryan & Dinan, 2012). The exact mechanisms by which this multi-system interplay cause the effects are complicated and still under investigation; however, it seems clear that behaviour, neurophysiology and neurochemistry can be affected through modulation of the gut microbiota (Cryan & Dinan, 2012). Modulating diet and stress is a key way to support this complex biodiverse inner world to which we are so inextricably linked.

Inflammation and depression – chicken, egg or both?

There is now a substantial body of data linking chronic low grade systemic inflammation to depression (Berk et al., 2013). There has long been a correlation of depression with chronic disease; however, due to the deep fault line that separates the workings of the mind from the workings of the body, it was assumed to be a secondary effect of living with a debilitating disease (Bullmore, 2019). Until very recently it has been considered that the blood brain barrier was impermeable; that is, the brain was “immune privileged” (Bullmore, 2019, p. 5). It is now clear the immune system and nervous system are in constant communication (Bullmore, 2019). Epidemiologically, depression occurs significantly more frequently among patients with rheumatoid arthritis (25%) and other inflammatory and autoimmune conditions such as inflammatory bowel disease, psoriasis and chronic lung disease (Bullmore, 2019). The strong correlation between coronary heart disease and depression is also widely known (Parletta et al., 2019).

Inflammatory processes that occur in depressed individuals have been biologically well described (Berk et al., 2013), the details of which exceed the needs of this dissertation.

To summarise, depression is associated with a chronic low-grade inflammatory response, activation of cell-mediated immunity and activation of the compensatory anti-inflammatory reflex system characterised by negative immune-regulatory processes (Bullmore, 2019). Evidence shows that clinical depression is accompanied by increased oxidative and nitrosative stress and autoimmune responses (Berk et al., 2013). The correlation of major depressive disorder (MDD) patients and elevated inflammatory markers is around 30%. It is not known if inflammation causes depression or depression causes inflammation; however, the association between inflammation acting as a mediating pathway or as neuroprogression is no longer deniable (Berk et al., 2013; Bullmore, 2019). It has been shown via MRI scanning that MDD patients with high inflammatory markers (CRP) in their blood have reduced strength of connectivity between components of the brain circuits or networks known to be important for emotional processing and mood disorders. Inflammation occurring in far-flung parts of the body, disturbs the coherent function of the emotional brain (Bullmore, 2019). Fascinatingly, whilst genetics only amount to approximately 10% total risk factor for MDD, the single gene most strongly associated to MDD is known to control the inflammatory response of the stomach to infection (Bullmore, 2019). The obvious question then is, what causes inflammation?

A range of factors associated with the development of depression (and other mental illnesses) seem to be associated with systemic inflammation; these include psychosocial stressors, poor diet, physical inactivity, obesity, smoking, altered gut permeability (microbiome), atopy, dental cares, poor sleep and vitamin D deficiency (Berk et al., 2013). Bullmore (2019) added childhood maltreatment,

physical and emotional trauma, diabetes, cardiovascular disease, surgery, chronic illness, viral and bacterial infection, chemotherapy, radiation and antidepressant resistance as contributing inflammatory factors.

We have seen links between a Mediterranean diet, reduced inflammation and improved cultivation of the microbiome and improving mental health scores. What was surprising to me as a psychotherapist, when looking at sources of inflammation, is the link between stress, trauma and childhood maltreatment. Bullmore (2019) stated “the most significant source of inflammation causing MDD is likely stress. Social stress is the single biggest risk factor for depression” (p. 9) and “there is growing evidence that the relationship between stress and depression could be mediated by inflammation – that stress causes inflammation, which in turn causes depression” (p. 9).

The Dunedin study showed an interesting link between adverse childhood events and increased inflammatory markers in adulthood (Bullmore, 2019). Further, teachers considered ‘burnt out’ produced more inflammatory cytokines than their ‘resilient’ counterparts and again after the stressful event of public speaking (Bullmore, 2019). There is much more evidence of stress causing inflammation in animals, such as detailed evidence of maternal separation in rats leaving a mark on the genome, which biases the animals’ inflammatory response to later stresses (Bullmore, 2019).

The immune system has a remarkable memory, as evidenced by exposure to a disease such as measles in childhood activating an aggressive immune response in adulthood if contact is made with the virus (Bullmore, 2019). There are emerging questions around whether there could be a similar memory held in the immune

system in response to social survival threats, such as childhood trauma, contributing to depression risk later in life for these individuals. The immune system's memory may mediate the link between childhood adversity and adult depression (Bullmore, 2019).

There is a well-known observation of improved mood after initial steroidal treatment in inflammatory disease and further research into anti-inflammatory medications for mood disorders are underway (Bullmore, 2019). Given the lack of consistent efficacy in current pharmaceutical interventions for mood disorders, and the evidence pointing to multifactorial contributors, moderating the inflammatory response in depressed individuals is likely to be an effective tool for some people (Bullmore, 2019). Addressing factors such as diet, intestinal permeability, microbiome and exercise, known to exert an anti-inflammatory effect, seems warranted.

Conclusions

From the above literature, there would seem to be widespread agreement about the potential of nutritional psychiatry to transform treatment approaches to many commonly experienced mental health issues. However, given it is still very much in the early stages, we cannot be sure how it will translate for individuals and in clinical practice (Zepf, Stewart, Hood, Guillemin, & the International Society for Tryptophan, 2016). A comparison is made to the advent of neuroimaging and the expectation it would have wide ranging clinical impacts when in fact it did not (Zepf et al., 2016). The authors caution against false hope in the face of research in its youth. "In our opinion, the 'journey from novel to mainstream' is a long one and

requires collaboration, despite the fact that dietary aspects in psychiatric neuroscience have a significant history” (Zepf et al., 2016 p.1).

Another critique from the Society for Tryptophan centered on the lack of acknowledgment of early work, done in the 1970s, when the serotonin hypothesis was developed, stating nutrition in psychiatry was not a ‘new theme’ or ‘hot topic’ and that the pioneers of this work should not be forgotten (Zepf, Hood, & Guillemin, 2015). I agree we should not overstate clinical relevance, and echo the assertion that more high quality data is needed. However, I cannot help but reflect that the level at which these critical concerns are raised, seem to relate to a potential challenge to the dominant paradigm and a territorial positioning reflective of our dualistic compartmentalised medical system.

To conclude this section on nutritional psychiatry, I offer a summation from a recent review of the literature to which I concur:

Multifactorial diseases need multifactorial approaches. It would be conceivable that future psychiatrists and psychotherapists prescribe special diets to address the specific nutritional deficiencies of mentally ill patients, balance the gut microbiota, and reduce chronic inflammation to optimize the effects of pharmacological and psychotherapeutic treatment. (Mörkl et al., 2018, p. 5)

Given the compelling evidence linking nutrition to mental health, and wisdom around the importance of diet, one would assume eating in a way that supports these knowing’s would be simple and intuitive. Clearly, it is not.

DIGESTION

Chapter 4: What Does This All Mean?

As I have consumed and digested the nutritional psychiatry literature, I have found myself pondering, if we know (and have always known) that a nutritious healthy diet can significantly improve our mental (and physical) health, *why don't we do it?* In the previous chapter, we have seen macro issues concerning reduction in diet quality. However, the more I read, the more I wonder about the micro aspects—the psychodynamics of diet. What gets in the way of us nourishing ourselves, of caring for ourselves in this profound way? Are there links to receiving nourishment in a wider metaphoric sense? How does our early relational history impact our relationship to food? What does our relationship with food tell us about ourselves? If nourishing ourselves was a simple endeavour, we would not likely be grappling with the alarming health crisis outlined in the introduction to this dissertation. Indeed, to quote Shakespeare, “Let me have men about me that are fat; Sleek-headed men, and such as sleep o' nights: Yond Cassius has a lean and hungry look; He thinks too much: such men are dangerous” (Caesar in W. Shakespeare's “Julius Caesar”, Act I, Scene ii).

Our Relationship with Food... It's Complicated

What, when and how we eat is a complex interplay (Koster, 2009) and carries a multitude of personal meanings (Terry & Reeves, 2015). Take for instance, the way we prepare and share our meals, engage in cultural practices, rituals, connect over a cup of tea, celebrate with a glass of champagne and offer food to loved ones in times of grief. Our lives revolve around food. These experiences all create

associations, habits and meaning. Figure 2 shows (a non-exhaustive) representation of the factors influencing food choice (Adams, 2010).

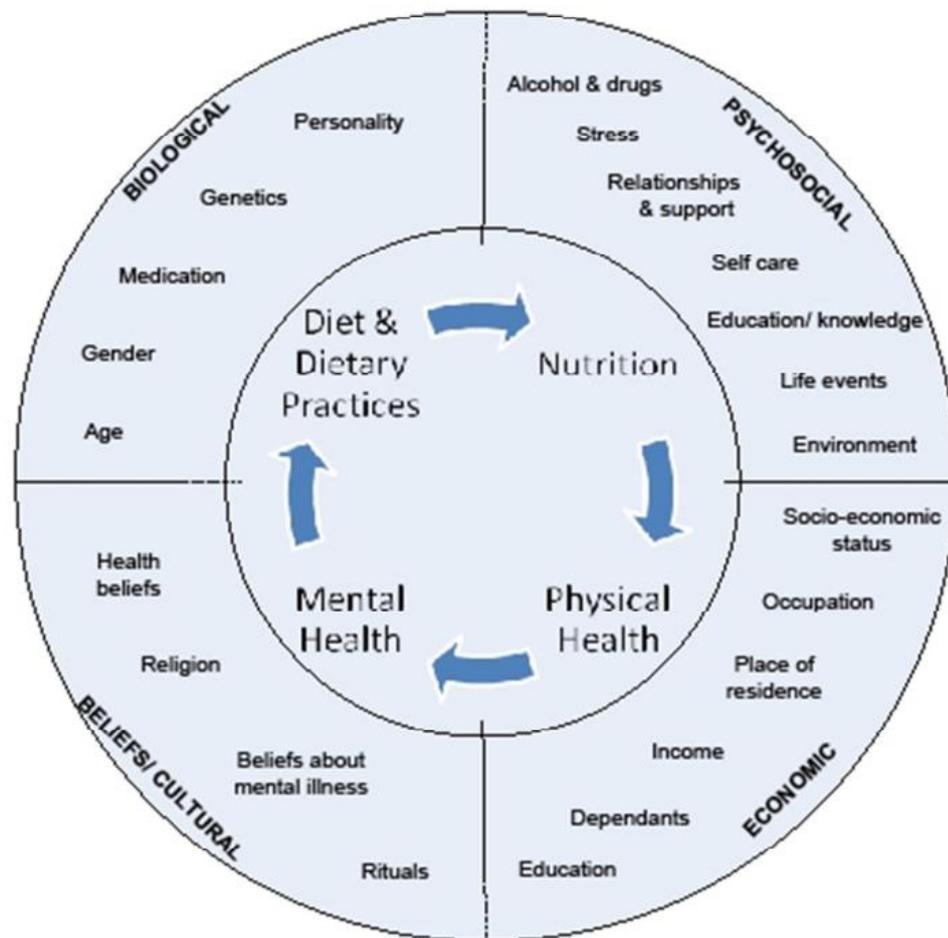


Figure 2. Factors influencing food choice

As we can see, these influences intersect across every aspect of our lives. Our food choice is a direct expression of ourselves as whole-persons.

Many divisions of scientific exploration have attempted to answer ‘*Why* does *who* eat *what* and *where*?’ (Koster, 2009). Koster (2009) summed up the contributions from each fraternity in the following passage:

Biology (e.g. energy balance), physiology (e.g. oro-, gastro-,intestinal mechanisms) and motivation and decision psychology (e.g. search for stimulation) each attack the “why” question in their own right and provide answers that they see as the central one, although admittedly it is slightly modulated by influences from the other factors. The same holds for biology

(e.g. genetic factors, gender), sociology (e.g. culture, tradition, social status) and social-, developmental- and differential psychology (e.g. group formation, age and learning, personality traits like neophobia) with regard to the “who” question and for sensory, consumer and food science (e.g. sensory attributes, food chemistry, nutritional value), marketing (e.g. consumer attitudes and beliefs, brands), perception-, memory- and learning psychology (e.g. sensory interactions, learning and expectations) and economics (e.g. price, benefit) with respect to the “what” question. Finally, almost all of these disciplines have answers to the “where” and “when” questions. Biology and physiology (e.g. hunger, thirst, satiety, eating initiation and termination), economics (e.g. availability, budget), sociology (e.g. cultural traditions, cooking time constraints, influence of travelling) marketing (e.g. advertising, distribution), consumer science (e.g. attitudes, risk perception) and memory-, emotion-, social- and decision psychology (e.g. situational aspects, influence of conviviality, impulsive vs. restrained behaviour). (p. 1)

The breadth of investigation into food choice is vast; yet, understanding food choice for researchers and lay people remains vexing (Rothman, Sheeran, & Wood, 2009).

A thorough exploration of each of the aspects above, far exceeds the size of this dissertation; nor would it satiate my curiosity for the less-explored elements. Much has been written about the behavioural aspects of food choice and focuses primarily on the immediate moment of decision making and possible mechanisms around this (Rothman et al., 2009). However cognition is influenced by both conscious and unconscious processing and representations (Jacquier, Bonthoux, Baciú, & Ruffieux, 2012). The influence of the latter is sorely missing from the literature.

The bidirectional correlation between food and mood and the corresponding neurochemical pathways (addiction, reward, activation of the HPA axis) have been well described and offers vital facets for understanding food choice (Gibson, 2006). With all this being written about at length, a simple fact remains—

“food preferences are not shaped in isolation; eating is an inherently social behaviour” (Hamburg, Finkenauer, & Schuengel, 2014 p.2). Despite this simple fact, studies on emotion regulation and food have primarily focused on *intrapersonal* as opposed to *interpersonal* factors (Hamburg et al., 2014).

A Missing Link?

As a psychodynamic psychotherapist, my interest is never far from the unseen, the unspoken or the un-thought. It is with this in mind that I follow my own gut and explore the less discussed unconscious psychodynamic, emotional regulatory aspects in relation to food choice.

Koster (2009) supported exploration in the area of unconscious processes, highlighting a relatively recent change in the psychological landscape by the insight that most human behaviour is not made by conscious choice. Practitioners informed by psychoanalysis will be looking sideways at this comment, knowing full well the power and relentless presence of unconscious process. However, with the domination of cognitive behavioural science, the idea that unconscious process influences behavioural choice has more or less been banned from scientific exploration (Koster, 2009).

Having acknowledged that food choice is a result of complex behaviours and interactions, the research field is still operating from a largely mono-disciplinary perspective. Thus, the clear demonstration of the unconscious nature of most of our decision making is largely absent from the data (Koster, 2009). Instead, the focus has remained on reasoned action and planned decision making which has come under criticism for its low predictive validity, strong theoretical bias and weak methodology (Koster, 2009). Further, the exploration of unconscious process in

food choice is largely from a behavioural perspective and centres around immediate factors influencing behaviour such as priming; for example, customers unaware that French music playing in the store influenced them to buy French wine (Jacquier et al., 2012) and not early relational development, learning, associations and memories. Considering the reality that our daily life is full of behaviours that have not been consciously learned and our food habits are initiated in early infant experiences (Koster, 2009), it seems logical and obvious to explore this aspect in relation to food choice.

My interest for the purpose of this study based on the compelling evidence that nutrition can significantly improve mental health outcomes, is ‘what gets in the way of people being able to nourish themselves when we know it can be life changing?’ It raises a further question ‘what is disordered eating?’ Weiss (2006) agreed the question is not linear: “Given that there is the cultural normative discontent, what is pathological and what is not is always a question” (p. 9). If we consider our relationship with food on a continuum (anorexia nervosa and obesity at opposite ends of the pole), perhaps we can extrapolate some of what we know and apply that understanding to those suffering on a less pathologic, yet health limiting (at best) or health damaging (at worst), scale where intention is not congruent with action.

There are psychodynamic overlaps in those with eating disorders (Caparrotta & Ghaffari, 2006) and inevitable differences in people at either ends of the disordered eating scale that will not be entered into here. However, Weiss (2006) stated that “What these patients do have in common is developmental deficits that make them vulnerable to self-regulation problems” (p. 9). I use the

terms self/emotion/affect regulation interchangeably to describe the same process as outlined by the four following criteria;

(a) awareness and understanding of one's emotions, (b) acceptance of one's emotions, (c) the ability to control impulsive behaviour and engage in goal-directed behaviour when experiencing negative emotions, and (d) the ability to use emotion regulation strategies flexibly and to modulate emotional responses to attain one's goals (Jennissen, Holl, Mai, Wolff, & Barnow, 2016. p.2).

Under normal circumstances, the child learns these crucial life skills with secure attachment in infancy and 'good enough' parenting and modelling. It is a major developmental task.

Self-regulation issues are varied and unique to each individual as are the creative adaptations (defences) generated in response to the distress. In her enlightening paper on (group) psychotherapeutic underpinnings and process in obese patients, Weiss (2006) quoted from Theodore Rubin's 1973 paper; "Obesity may be regarded as one of the great American psychological defence symptoms" (p. 6).

Psychic Development and Food

The sensation of hunger is a primary avenue where infants learn about need in relation to other, which is why psychoanalytic theory places such important emphasis on the role of food and feeding as being key to child development (Heenan, 2005). Colleen Heenan (2005) drew from the British school of psychoanalysis to highlight that food's material and symbolic connection to the infant's primary caregiver makes it a key 'transitional object' and continues to be such throughout life.

From a psychoanalytic perspective, the taking in of food is not just physical consumption but a 'taking in' of the emotional experience of the attachment relationship (Heenan, 2005). The emotional qualities of the interpersonal feeding experience is internalised and acted upon unconsciously by the child (Heenan, 2005). The psychophysical experience of hunger, food and feeding play a central role in object formation both materially and symbolically (Heenan, 2005). Psychoanalytic theory suggests the infant lacks the ability to determine self from other, thus external relationships are initially experienced as aspects of the self (Heenan, 2005). The consistent interplay between hunger, need and feeding with the attachment figure slowly allows the infant to develop a sense of self, to separate and individuate and find agency.

Winnicott (as quoted in Heenan, 2005), suggested a key element in psychological development of separation and individuation involves the infants' projection of feelings (about themselves and others) onto transitional objects such as blankets, teddy bears and **food**. The infant is then able to manage otherwise unbearable emotions, desires and impulses which facilitates a growing sense of autonomy by countering a sense of loss of control in relation to distance from the caregiver (Heenan, 2005). The transitional objects are a primary process by which we learn self-regulation. As infants become more physically independent from their caregivers they have opportunity for further development of autonomy with the chance of feeding themselves and the act of accepting or rejecting foods, all further attempts at developing a sense of self and desire (Heenan, 2005).

In her paper on obesity, Weiss (2006) drew from Thomas Ogden who suggested that eating disordered patients were unable to create psychological

space where need or desire could be generated, leaving a feeling of psychological deadness. Of central note, and specific to self-regulation, are the misrecognitions on the part of the mother to the infant's internal state, which leads to being misrecognised and misrecognising on the part of both mother and infant. The patients present as experiencing anxiety, alienation and despair in connection with the feeling of not knowing what it is that he or she feels or who, if anyone, he or she is. Eating in large quantities substitutes warding off the terror of the potential space of not knowing (Weiss, 2006).

Caporrotta and Gaffari (2006) concluded their thorough review of psychoanalytic contributions to understanding eating disorders further highlighting the struggle with separation and individuation in those with eating disorders (in this case anorexia nervosa and bulimia). Acknowledging the important contributions from psychoanalytic thinkers, they go on to say "The unconscious solution found by eating-disordered patients has to be understood within the complex interaction between early emotional and nourishing experiences, family dynamics and societal pressures" (Caparrotta & Ghaffari, 2006, p. 18).

Theories on infant development and affect regulation continued to develop as psychodynamic psychotherapy moved to a more relational theoretical framework cemented by John Bowlby's work on attachment. Children are hard-wired to connect with a primary adult from which their relational framework can develop (Van der Kolk, 2014). The more responsive the adult, the deeper the attachment. From the intimate to and fro of the attachment experience, children learn how to self-regulate and differentiate their emotions from others; they develop self-awareness, empathy, impulse control and self-motivation, all crucial

skills of a well-functioning adult (Van der Kolk, 2014). Conversely, in consistent miss-attunement, the opposite is true and the child is left with maladaptive self-regulatory mechanisms. Bost et al. (2014) summarised by saying

Secure attachment relationships, with available and responsive caregivers, provide children with a "secure base" to explore the environment, a safe haven in times of distress or uncertainty, and a source of joy under ordinary conditions. In contrast, insecure attachment relationships often evoke feelings of anxiety, uncertainty, and potentially threat in close relationships. (p. 2)

It is this core developmental aspect that is missing from the literature in relation to food behaviours and, from my standpoint as a psychodynamic psychotherapist, the most interesting.

For a person to establish adequate self-regulatory functions they must receive consistent empathic (good enough) co-regulation from their primary caregiver from which primitive processes and skills can be built. Weiss (2006) linked this back to her work with obese patients;

These patients are out of tune with their bodies to a degree that suggests dissociation. Dissociation is often the marker to their un-relatedness to themselves. They use their bodies and alimentary canal as a means of restitution for what they did not get and as a transitional "unloved" object. (p. 9)

Weiss went on to say

Self-regulation is a sophisticated step in development, optimally reached within a relationship anchored in secure attachment patterns. Since the infant is limited in its ability to regulate itself, regulation is initially done through the self-object, generally the mother (primary caregiver). It is through good enough parenting that the affect of the infant is regulated. The parent understands the child, and the child feels understood. As the infant develops, it incorporates this regulation and can begin to differentiate and distinguish itself from the parent. The child becomes capable of self-soothing without the use of food as the regulator or stopper of emotions - the nulling out of emotions. (p. 10)

Developmental trauma requires a form of dissociation. Weiss (2006), referenced Krueger (2002) who referred to these traumas as “experiential black holes” (p. 13), noting that it is impossible to experience a sense of wholeness when vital aspects of self-experience are dissociated. Overeating and bingeing become a means for patients to fill these holes. Bingeing is described by patients as a “kind of dissociative experience: nulling or dulling out, zoning out” (Weiss, 2006 p.13). Further; “Having received only un-empathic or inconsistent attunement, originally with their mothers and then their families of origin, they (obese patients) operate from a primitive developmental standpoint and need a place to experience empathic attunement for the first time” (Weiss, 2006, p. 10) (i.e., the therapeutic relationship).

Weiss (2006) highlights Van der Kolk and Fisler (1994) who asserted that the “loss of the ability to regulate the intensity of feelings is the most far-reaching effect of early relational trauma” (p. 12). Allan Schore (2009, 2011) described the effect developmental trauma has on the implicit relational framework (right brain) and the mechanism by which the psychotherapeutic process goes about rewiring the right brain responsible for implicit relational memory and affective experience. It is the ‘being’ of the therapeutic engagement, the attunement and responsiveness of the relationship that creates the relational safety from which to experience dissociated affect and learn new regulatory capabilities through co-regulation, from which new neural pathways can be generated. The emerging data suggesting that optimal nutrition increases neural plasticity (Jacka et al., 2015) which, in turn, could potentially maximise the neuro-generative effects of psychotherapy, is a thoroughly exciting idea.

Food for Mood, Mood for Food

This dissertation has evolved to traverse a vast landscape with more questions than answers. Our relationship with food intersects every facet of being human. Within each of these facets is investigation into how that specific part contributes to the whole with very little multidisciplinary integration. Upon exploration, it appears the literature became fixated on reductionist explanations of this complex topic and forgot that infants are fully dependent upon caregivers for food provision and become conditioned to associate having their needs met with the presence of others (Hamburg et al., 2014). Food is a fundamental conduit in our attachment process and psychic development. Our relationship to food is, at least in part, a relational issue.

Unconscious dynamics have largely been ignored in recent explorations (Koster, 2009; Köster & Mojet, 2015) and there is a dearth in the literature exploring these important foundational influences. Köster and Mojet (2015) highlighted an important distinction between conscious and unconscious emotion. They argued that the emotional unconscious (implicit emotion vs explicit emotion) should be considered alongside unconscious behaviours and implicit memory. They go on to quote Berridge and Winkielman

For an emotion to be unconscious, people must not be able to report their emotional reaction at the moment it is caused. Yet there must be clear evidence of the emotional reaction in their behaviour, or physiological response or subsequent subjective impression of an affect-laden event. (p. 2)

Psychodynamically informed practitioners will not need convincing that affect can occur outside of conscious awareness and drive unhelpful behaviours. It seems the unconscious influences on the multiple food choices we make each day create a kind of mindless eating (Köster & Mojet, 2015) where intentions, knowledge and interventions are not always congruent with the choices that are made.

Food - The Link Between Mother (Caregiver) and Baby

When reminding ourselves of the pivotal role that food (the breast) has in attachment, infant psychic development and emotion regulation, it seems glaringly obvious that our early relational history plays an important part in our relationship with food. Infants require regulation of all of their non-autonomic functioning by a responsive, consistent other. Thus, they come to experience having their needs met (or not) in relationship, therefore, the emotional regulatory function of food and eating is imbedded in our earliest relationship (Hamburg et al., 2014). The (in)consistent experience of having emotional and physical needs met becomes the aforementioned implicit emotional experience associated with food and regulation.

Adolescent obesity has been linked to attachment issues and the early maternal relationship. Without the experience of down-regulating the stress response via the mother, the child becomes stress sensitive and the neuro-hormonal system is impaired, as is the capacity to self-regulate. A cascade of effects are observed where chronic activation of the HPA axis leads to metabolic disturbance and increased cravings for sweet/salty foods in order to gain a sense of physical and emotional soothing, further perpetuating the cycle of disordered eating (Bost et al., 2014). Further links have been drawn between miss-attuned parenting and disturbed child hunger cues and difficulty regulating energy intake, further supporting the argument for this vital developmental task as being crucial in this field (Bost et al., 2014).

Evers Stok, and de Ridder (2010) offered an hypothesis that it is the regulation *strategies* people use to deal with emotions that are responsible for increased eating, as opposed to the emotions themselves. Negative emotions were induced and intake of comfort food and non-comfort food was measured. It was found that the

participants' emotion regulation strategies (re-appraisal or suppression) were responsible for the comfort eating; that is, those who used suppression as a tactic used food to regulate themselves, those who had skills in re-appraisal did not use food to self-regulate (Evers et al., 2010).

Hamburg et al. (2014) quoted Troisi and Gabrielle (2011) in linking comfort food to belonging and attachment;

The emotional power of comfort food comes from its connection with relationships and is realized in its propensity to reduce feelings of loneliness. However, for participants with insecure attachment style, comfort food did not reduce loneliness; supposedly, because caretaker-child experiences did not allow for the formation of positive mental representations of interpersonal closeness through food intake (Hamburg et al., 2014 p.3).

This links back to the idea that insecurely attached people may use food in an attempt to fill a relational black hole (Weiss, 2006) with no success.

Mutual Regulation through Food

Hamburg et al. (2014) proposed another potential mechanism for the establishment of food as a regulatory tool by highlighting the role of interpersonal empathic offering of food (empathic emotional regulation). They suggested that offering food to somebody in distress (grief, stressful time at work, issues at school, toddler tantrum) has a dual effect of reducing negative affect in both parties; that is, the person receiving the offering feels socially supported and cared for (and enjoys the psycho-physical effects of the food) whilst the person offering the food regulates themselves by reducing their own empathic distress activated in response to the other (Hamburg et al., 2014). The two parties feel closer together through the act of offering and receiving; there is a physical, psychological and emotional soothing with the ingestion

of the food, a sense of belonging is generated and, if successful, both parties experience a reduction in negative affect (Hamburg et al., 2014).

It appears parents' own use of food as a regulatory tool is a primary factor in the perpetuation of this cycle via the modelling the child observes, and in the act of offering food in the face of the child's distress, to soothe both the child and the parent. (Hamburg et al., 2014). Offering consistent empathic attunement and constructive parental support is a challenge, especially in modern society where time is a precious commodity and the family unit is isolated and under pressure. Parents who have experienced their own disturbed attachment history are at higher risk for ineffective parenting themselves as they unconsciously operate from their own implicit relational framework (Bost et al., 2014). Offering food may allow the parent to avoid a demanding or overwhelming scenario and distract and appease the child in a moment where other functional strategies may be more conducive to their psychosocial development. There appears to be a direct link to the parental overuse of food as an emotion regulation tool and the child's perception of lack of social support, which in turn leads to the child using food to regulate his or her own emotions (Hamburg et al., 2014).

An additional correlation has been established between using food to self-regulate and an (in)ability identify emotions both in the self and in the other (Hamburg et al., 2014), which again points to the parents' own attachment history being a factor in their ability to attune to their infant, offer emotional containment and accurate, effective responsiveness. By adulthood, attachment histories become internalised within personality and relationship development (Bost et al., 2014) which then unconsciously becomes their child's emotion regulation framework. Thus, the

miss-attunement and maladaptive regulation strategies between parent and child continue. Hamburg et al. (2014) quote anthropologist Kathleen Barlow who says: “if food and feeding are not intrinsic to mothering, they must be nearly so” (p. 5).

Assimilation

Chapter 5: Diet and Psychotherapy Practice

From the day we are born, we form associations between food, emotion regulation and social proximity (Bost et al., 2014). Our relationship to food is intrinsically linked to early relational development and carries a wealth of social and cultural meaning. As we have seen, the quality of our diet directly links with our mental health and our relationship to food is directly related to our psychic development and attachment. I find it curious that in my training and personal psychotherapy, food was never a topic of clinical exploration. Given the lack of discussion on the topic of diet and food (outside of eating disorders) in the psychotherapeutic literature, there is very little to draw on when considering how one might navigate introducing diet in the therapy room.

Given the compelling literature linking diet to improved mental health outcomes, both the British and Australian national health services have recommended lifestyle factors be addressed as a primary intervention for those seeking mental health treatment (Chatterton et al., 2018; Terry & Reeves, 2015). There is increasing awareness both publicly and professionally about a model of health care that addresses mental health as a multifactorial issue (Mörkl et al., 2018; Terry & Reeves, 2015). This leads me to consider integrating the knowledge into practice.

In writing this dissertation, I encountered a level of resistance that was new to me. I have reflected widely on this and, like most things in the dissertation, it was a multifactorial issue. I understood something about my resistance when reading about interdisciplinary integration and surrounding issues. I came to reflect on the

underlying conflicts and theoretical positioning between psychotherapeutic disciplines (Norcross & Goldfried, 2005) having something to do with fearing stepping outside my theoretical framework. Would integrating other approaches reduce my validity or effectiveness as a psychodynamic psychotherapist? Would I be letting go of something I could not get back? Why does it feel like it has to be one or the other? These questions came up against my belief that no one therapeutic approach works for everyone, and drawing from other modalities will enrich what we have to offer as practitioners, not detract.

In reality, very few psychotherapists practice within a strict single theoretical framework (Norcross & Goldfried, 2005). Indeed, Terry and Reeves (2015) highlighted Rønnestad and Skovholt (2003) in identifying six stages of developmental growth and integration of counsellors and psychotherapists. Phase 5: *The Experienced Professional Phase* echoed Terry and Reeves' (2015) own work that showed professionally mature therapists tend to opt for more integrative approaches as they come to experience limitations in single theory practice. My resistance was linking back to the dualistic split and coming directly into contact with systemic delineation between mind and body and between disciplines and professions—the splits feel pervasive, multi-layered and somewhat defensive. I felt hesitant when imagining how my findings might be received, especially by those more strictly aligned to analytic thinking where interfering with transference with a more directive approach runs counter to therapeutic stance and exploration of the unconscious.

Burks and Keely (1989) gathered data on diet and psychotherapy by questioning 232 practitioners. They highlighted interference with theoretical stance as an issue, citing 28.6% of respondents' hesitancy to discuss diet because it was

considered inconsistent with their theoretical orientation. A further 22.9% felt they were unqualified to offer advice in this area. Diet and exercise were low on the list of assessment investigation compared to other lifestyle factors such as smoking, alcohol use, family history of physical problems, sleep and drug use (Burks & Keeley, 1989).

One other quantitative study has been published on the topic (Terry & Reeves, 2015). In it, it was highlighted that therapists were only likely to advocate health habits with which they were personally familiar (Terry & Reeves, 2015), indicating the therapist's own relationship with food is a factor. Both studies showed that referral for dietary intervention was the most common approach in addressing the issue and both highlighted the need for more study in the area. Considering both of these were published in the 1980s, with the surge of recent literature it seems imperative we think about it as a collective and look at how we might introduce the topic and manage the directive nature of it.

Terry and Reeves (2015) highlighted the sensitivity of the topic and suggested interventions should be considered on a client-by-client basis and that vigilant attention needs to be paid to the client's response. In my mind, this stance should be standard practice in psychotherapy. Whether it be a transference interpretation or any other intervention, the needs of the client must be the priority and their response closely monitored, attended to and thought about in the wider dynamic context of the therapy. Terry and Reeves suggested "therapists need to hold realistic expectations of a client's willingness and ability to tackle dietary change" p.8. They suggest that even the client's response to the topic tells us a lot about them and their ability to care for themselves.

Of course, we need to deeply consider the impact any intervention has on the person and the therapeutic alliance. My question for myself going forward is, how can I keep psychodynamics at the core of my work and utilise diet and lifestyle interventions within the relationship in a way that may best serve the individual needs of my client? When a topic is absent from the therapy space my curiosity is instantly piqued. A defining feature of psychotherapy training is the trainee's exploration of their own dynamic history and defensive process. Therapists' self-awareness is crucial and "reflection on one's own personal self-care and dietary habits is required in order for sensitive work with clients" (Terry & Reeves, 2015 p.9). Inevitably, we must traverse our own mind body dissociation.

Further, we need to consider scope of practice and act accordingly. Given the simplicity of the Mediterranean diet, there is not the need to be a dietician to raise the benefits of a whole food diet, like one would address alcohol, sleep and other lifestyle factors. We know reducing sugar, stimulants and processed food while increasing water, protein, fresh fruit and vegetables has a stabilising effect on many levels. Anything that felt out of the therapist's scope of practice would warrant referral; however, the exploration of the client's relationship, meaning and history with food is likely to be rich therapeutic work regardless if there is desire for dietary change or not.

With a shifting landscape highlighting the undeniable significance of whole-person mental health care, psychotherapy training programmes would be wise to introduce the topic of nutrition and become abreast with the relevance of the literature. Indeed Terry and Reeves (2015) concur; "counselling and psychotherapy training courses might consider introducing diet and nutrition modules, providing

opportunity for exploration of theoretical stance and practical dilemmas, especially regarding issues of directivity and appropriate intervention in therapy” (p.9).

Discussion

As I have discovered exploring this literature, there is no facet of being human that food does not touch. Many early memories, both positive and negative, are associated with food, the exploration of which instantly engages us with our young selves. Our relationship with food inevitably brings us up against ourselves, our earliest relationships and potentially uncomfortable truths about our own use of food as a regulatory tool and our own lack of conscious control in this area of our lives. Perhaps our own unconscious emotional dysregulation and use of food as a soothing transitional object prevents us from creating space for our clients to explore these parts of themselves, much like in a disturbed mother-infant dyad.

The parts return to the whole

This dissertation has led me to cover a vast amount of literature in my pursuit to interpret the links between psychodynamic psychotherapy and the emerging field of nutritional psychiatry and the gut-brain axis. I have come to view this study as an assimilation or integration of two meta hermeneutic circles; the first being my naturopathy training and the second, my psychotherapy training. This is a brief return to the whole having immersed myself in those two parts. It is also just the beginning. I view this work as one part of an ongoing hermeneutic exploration of my life’s interest and work. In the following discussion I draw together the essence of what emerged as I embarked on this journey through the literature.

I began by outlining my pre-understanding and inherent subjectivity by locating myself as a Naturopath and Psychotherapist with the desire to practice

holistically integrating the two disciplines. I briefly discussed the entrenched dualistic split in the medical system and how there are growing calls from both researchers and the public for a more effective approach to the mental (and physical) health crisis we are facing (Berk et al., 2013; Broom, 1997; Bullmore, 2019; Elkins et al., 2005; Gendle, 2016; Kaplan et al., 2015; Mörkl et al., 2018; Terry & Reeves, 2015)

After introducing my chosen methodology and method, I provided examples of historical wisdom pointing out that nutrition impacting mental health is not a new idea and that perhaps we are rediscovering something vital that has been lost. I then entered the hermeneutic circle with nutritional psychiatry literature highlighting four areas gaining much attention; the Mediterranean diet, micronutrient supplementation, the microbiome and inflammation. I understood that a wholefood diet was beneficial for mental health; however, the large effect sizes across differing populations were impressive. We are seeing data reporting significant protective effects of a wholefood diet across populations, and significant improvement in those with existing depression. The SMILES trial reported significant reduction in depressive symptoms and an astounding 32.3% complete remission (Jacka et al., 2017). The HELFIMED trial showed 60% fewer people experiencing severe levels of depression and 72% fewer reporting anxiety (Parletta et al., 2019). Increasing nutrients through diet was considered cost effective and adherence was high, overall health improved and effects were sustained (Chatterton et al., 2018; Jacka et al., 2017; Parletta et al., 2019).

Likewise, micronutrient supplementation is gaining attention for significantly improving the lived experience of people suffering from various mental health issues including, depression, anxiety, autism, post traumatic stress disorder, behavioural

issues, psychosis, schizophrenia and violent behaviour (Elkins et al., 2005; Mörkl et al., 2018; Rucklidge, 2009; Rucklidge & Harrison, 2014; Rucklidge & Kaplan, 2013; Sarris et al., 2015). Micronutrient supplementation may be an effective tool for those whose nutritional needs or resources exceed what can be obtained through dietary modification. Micronutrient supplementation has been shown to be effective and well tolerated and are under current investigation as a first line approach in treatment seeking, un-medicated depressed adults to further evaluate the validity of the treatment as an alternative to current psycho-pharmaceutical protocols (Meredith et al., 2018).

Whilst the literature is still understanding the mechanisms behind the effects of increasing wholefoods and nutrient load, areas repeatedly highlighted were inflammation, the microbiome and intestinal permeability, chronic low grade immune response and HPA axis activation (Berk et al., 2013; Bullmore, 2019; Cryan & Dinan, 2012; Mörkl et al., 2018; Sarris et al., 2015). Also noted, but not expanded on in this dissertation, were biochemical underpinnings relating to oxidation, neurotransmitter and mitochondrial function (Bullmore, 2019; Kaplan et al., 2015; Lai et al., 2013; Mörkl et al., 2018; Sarris et al., 2015). We are in a new era of understanding the bi-directional interplay between bodily systems and mental health, which is generating calls for diet and lifestyle factors to be addressed as a primary mode of treatment for homeostatic imbalance contributing to mental illness (Bullmore, 2019; Mörkl et al., 2018; Sarris et al., 2015).

After traversing this first cycle of literature I paused. With the literature validating inherent (and naturopathic) wisdom that good nutrition is vital for optimal functioning and a powerful vehicle for healing, what gets in the way of us nourishing

ourselves? The emergence of this question led me to a vast, complex pool of literature. Many scientific disciplines have attempted to answer the question “who eats what and why?”

After stepping back and observing the factors that influence food choice (as depicted in Figure 2) I realised in a graced moment (Smythe, 2012) that food touches every aspect of the human experience; it is a vehicle, symbol and expression of ourselves as whole-persons. Food choice is influenced by biological, cultural, sociological, political, environmental, ecological, psychological and relational factors (Adams, 2010; Koster, 2009); however, the majority of the research has focused on behaviour and intrapersonal mechanisms (Koster, 2009). Whilst the wealth of investigation into these various areas contribute important factors, there remains something elusive about nourishing ourselves with food in a way that we know has profound and far reaching positive effects. There is something about this complex human behaviour that seems to lay just outside our reach as evidenced by the startling health crisis we are in.

The psychotherapist in me naturally went to a place of curiosity around food and early relational development. It became clear there was very little exploration in this area which reflected the absence of the topic both in my own therapy and in my training. I realised that food was directly linked to our earliest relationships. It functions as a transitional object, aids the process of separation and individuation, object relation formation, attachment and emotion regulation. It is a crucial conduit in psychic development and is intrinsically linked to the infant-mother (caregiver) relationship (Evers et al., 2010; Hamburg et al., 2014; Heenan, 2005; Weiss, 2006).

Food is central to regulation, both physically and emotionally, starting from day one at the breast and continued through (mis)attuned attachment experiences, observation and experience of parental regulation strategies, familial environment and implicit/explicit associations. We create further associations and meaning in experiencing connections, or lack thereof, with our wider family, social and cultural groups. Through food we belong and express connection and care. Positive and negative childhood memories are often attached to food (Terry & Reeves, 2015) whether it be celebrations, rewards or tensions at the dinner table, scarcity, punishment etc. The impact of these early experiences are likely to be outside of conscious awareness and may provide a missing link for people where knowledge and intention around food choice remains incongruent or elusive (Evers et al., 2010; Hamburg et al., 2014; Heenan, 2005; Jennissen et al., 2016; Koster, 2009; Köster & Mojet, 2015; Gibson, 2006; Terry & Reeves, 2015; Weiss, 2006).

When reading and re-reading the literature, and looking at my dissertation as a whole, I was struck by how interdependent every system of the body is and how interdependent we are. I had a renewed deep awareness that *nothing occurs in isolation*. The complicated bi-directional interplay between the CNS, GI and immune systems is so intricately connected, as is our psychic development.

When thinking about how to intercept these biological and psychological cycles, it appears as though diet is a tool that should be considered. Given the impressive results that improving nutrition has shown in various mental health symptoms, and the vast meaning and symbolism attached to our relationship to food, I have yet to find an argument against addressing food like we would any other maladaptive defensive regulatory behaviour in therapy. Perhaps using food to

emotionally regulate is so culturally normative the issue is hiding in plain sight.

Clinical issues of directivity, therapeutic stance and lack of dietary knowledge have been raised (Burks & Keeley, 1989; Terry & Reeves, 2015) and further research is needed to address issues of clinical application and psychodynamics.

As with all clinical issues, reflection on the therapist's relationship to food would be necessary (Terry & Reeves, 2015). I raise the idea that perhaps our own mind-body dissociation and maladaptive regulation in this area may contribute to a repetition of the disturbed mother-infant dyad and miss an important therapeutic opportunity. Conversely, I envisage the potential enactment of intrusive mothering or activation of a sense of failure or shame in the client who is not ready or able to engage in dietary improvement; close attention must be adhered to the client's response (Terry & Reeves, 2015) and underlying psychodynamics for sensitive effective work to take place.

Further, as a naturopath and psychotherapist, I have a long held discomfort with the commercialisation of diet culture, the image centric, fear based drive for 'clean eating'. This is an area if, given the time and resources, I would turn my attention. I would like to highlight that the positive effects of the Mediterranean diet occur irrespective of weight change. As with all interventions, it is my assertion that the client's circumstances and needs remain at the centre of the work and the wider psychodynamic implications are taken into account on a case by case basis. Further research is needed to clarify clinical issues of integration and potential impacts on the therapy and the therapeutic alliance. Issues pertaining to cost and access to food need to be addressed as do the levels of intervention appropriate given the symptoms, skills, finances, culture and lifestyle of the client. It is my assertion that

irrespective of specific dietary intervention in the clinical space, the client's relationship to food is likely to be rich therapeutic work and worthy of attention.

When I started to understand that early relational trauma was also linked to immune responses, inflammation, microbiome composition and associated complications, I realised the links are not just bi-directional within the biological body, they are multi-directional and influenced by our immediate relational environment and wider socio-political environment. Early relational trauma is a collective issue with far reaching consequences for individuals and communities, and does not occur in isolation. This has led to a profound realisation—that our relationship with the consumption, digestion and assimilation of food is intrinsically linked to societal factors including entrenched inequalities, disenfranchised communities, colonisation, individualism and capitalism. The environmental impacts of our food choices are also vast. In a time where the planet is struggling, our connection to the land and reflection on how we can consume sustainably has never been more urgent. Conscious food choice is political and environmental activism.

The implications of these findings are well beyond the scope of the present study, but point in the direction of further research which investigates the findings of nutritional psychiatry within this broader contextual frame. So often we individualise complex maladaptive behaviours that are a product of much wider dysfunctional issues within society. Dualism encourages us to disconnect and compartmentalise. Dualistic dissociation creates an illusion of certainty as we contain parts in isolation. Do we continue to subscribe to the dualistic divide to cope with the overwhelming enormity of wider socio-political and environmental issues? So we can avoid the harsh realities of the whole picture?

Strengths and Limitations of the Study

Given the nature of hermeneutic phenomenology, this study is inherently subjective and positioned from my experience and worldview. I have been led by my own interests and found texts that spoke to me and sparked my own thinking. I have interpreted the texts I have engaged with from my subjective position as a Pakeha female educated in both naturopathy and psychodynamic psychotherapy with an intention to integrate the two disciplines. This subjectivity led me to see how knowledge is so culturally bound, and ultimately led me to my key finding that the dualistic divide is a social and cultural issue. As I wrestled with dualism and enacted the research phenomena, I embodied the understanding in a way I would not have, had I been viewing it from an objective position. I had to engage with the divide to really know it.

My active subjectivity within the hermeneutic framework created a 'merging of these horizons' which allowed new thought to spring forth and completely open up a new perspective on the forces that maintain the divide; and, therefore, maintain ill health and disconnection. It was through my subjectivity that I gained a sense of the pervasiveness of the dualistic split. In my view, hermeneutics is a whole-person methodology, by bringing my whole-self I engaged in a new depth of understanding.

True to the methodology and the open ended nature of the circle, I acknowledge there were limits on my time which prevented me from entering another cycle of literature as I came to my main findings. Likewise, after doing two in-depth cycles of literature, my writing up of the work has, also, regrettably been time limited.

Implications for Research

This research brings attention to an important paradigm shift occurring in the mental health field and highlights gaps in psychotherapy training institutes around issues of food and nutrition in practice. This reflects the entrenched dualistic split individually, socio-culturally and institutionally. Dualism is embedded in research methodologies where isolating parts and making generalisations are key. Can there ever be institutional and, therefore, social change if we continue to avoid context, interconnectedness and wholeness of the subjects? Addressing the inherent enactment of dualism in institutions and research of these complex human issues that remain elusive, despite the domination of reductionism, would be worthy of further exploration.

Conclusion

This dissertation began by exploring the emerging field of nutritional psychiatry with an intention to inform psychotherapy practice. I noted some incongruence in my own relationship with food that I felt was dismissed in my personal therapy and noted the absence of the topic in my training and literature. After traversing the first round of data showing a strong correlation between optimal nutrition with improved mental health outcomes, I began to wonder about what gets in the way of us nourishing ourselves.

As I started to explore data with this second question in mind I realised food touches every facet of us as whole-beings. It is crucial for biological homeostasis, is intrinsically linked to our early relationships and psychic development and is a primary tool used for self-regulation and in offering regulation to others. We celebrate, commiserate and connect through food. Our access to nourishing food is

affected by wider socio-economic-political factors and the way we produce food has direct implications for our planet.

When realising the depth of meaning and how it directly relates to early development, I pondered issues of clinical application. Noting the dearth of literature in this area I highlighted therapeutic/theoretical stance, lack of dietary knowledge and therapist's own relationship to food as factors in the absence of food in the clinical space. This remains an area in need of further exploration as integration raises issues of directivity, transference and psychodynamics in the therapeutic relationship.

As I interfaced with the conflict of mind-body dualism throughout this research, I came to a meta understanding of interdependence in a way that I had not before. I was struck by the interdependence of every system in the body; and then wider, the interdependence of all beings, social and ecological systems. This dissertation has asserted that we do not lose sight of the complex societal issues contributing to 'lifestyle disorders' and mental illness; that is, individualisation, disconnection, colonisation, poverty, entrenched inequality and the myriad factors that foster intergenerational relational trauma and its far reaching biological and psychological impacts.

Through this work I came to understand a part of myself that had remained elusive despite many years of nutrition study, psychotherapy training and my own therapy. This study highlights an overlooked area both in the determinants of food choice and in psychotherapy practice. Optimal nutrition can offer a substantial tool for some people suffering from mental illness. Psychodynamic therapy may provide a missing link for those struggling with their relationship to food. The reasons why we

struggle to nourish ourselves in a way that can profoundly enhance our lives are multifactorial and complex. I assert that wider societal issues and constructs are influencing these choices more powerfully than we realise and should be addressed as part of the problem, not left to the individual to carry the unconscious burden. Regardless of how active the therapist chooses to be with the topic, exploration of clients' relationship to food is likely to be a rich therapeutic work and worthy of attention.

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