

PUTTING THE PIECES TOGETHER:
THE SUBJECTIVE EXPERIENCE OF ANOREXIA NERVOSA
OVER THE COURSE OF THE DISORDER

Submitted by
Sarah N. Pegrum
BA, PGDipPsych

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Abstract

Throughout the history of psychology there is evidence of fragmentation, at multiple levels. As a result of this fragmentation knowledge of mental illness exists in the form of separate fragments or pieces, and the understanding of the subjective experience of a mental illness as a whole is often lost in the pieces. Such fragmentation is a concern as it has a significant impact on those suffering from a mental illness, as they may not feel understood, or aspects of their experience of mental illness may be missed or overlooked. Thus potentially reducing the individual's ability and willingness to approach and engage in treatment, reducing the possible efficacy of treatment and increasing the risk of relapse.

The experience of not feeling understood, difficulties engaging in treatment and relapse are particularly common for individuals with anorexia nervosa, a disorder which has markedly been prey to the fragmentation in psychology. These experiences are concerning when one considers that anorexia nervosa is a chronic disorder, associated with severe physical and psychological consequences, including death, due to physical complications or suicide. The impact of the disorder stems beyond the individual, with families and care-givers also experiencing high levels of distress. Due to the risk, severity and chronic nature of anorexia nervosa, it is important that understanding of the subjective experience of anorexia nervosa is increased to foster research, development and implementation of efficacious interventions. These concerns led to the research question guiding this research: what is the human subjective experience of anorexia nervosa over the course of the disorder? The purpose of a broad research question was to maximize the pieces of experience gathered, as well as establish the context of experiences, and thereby gathering a picture of the subjective experience of the disorder in its complexity. As a vast array of, albeit fragmented, knowledge exists on anorexia nervosa over the course of the disorder, theories and hypotheses from the literature were used as points of triangulation.

In order to capture the subjective experience of anorexia nervosa qualitative methodology was used, and 15 self defined recovered sufferers of anorexia nervosa were interviewed. During the interview, participants were asked to describe their experience of anorexia nervosa over the course of the disorder, as well as comment on the perceived

relevance of theory and hypotheses (or pieces of knowledge) from four different orientations (biological, social-cognitive, family and existential) that exist in the field.

Data analysis involved gathering pieces from theory and participant experience, organizing these pieces, and working up from the data to establish a picture of an individual's experience at the different stages of the disorder, and how this changes over time. As the research was exploring both what is the subjective experience, and how it changes over time, data analysis was guided by both phenomenological and grounded theory methodology. An adapted form of Heidegger's (1962) worlds of being was also used, to assist organization of pieces, based on where the experience was in relation to the individual.

From this analysis a Threat, Distress, Alleviation Model, as well as phases of maintenance and recovery, were developed that meaningfully tie together pieces of experience, to capture the complex subjective experience of anorexia nervosa at different stages, and how an individual moves through the stages. The Threat, Distress, Alleviation Model, and accompanying phases increase the understanding of the subjective experience of anorexia nervosa, and have the capacity to assist research, development and implementation of efficacious treatment. The development of the Threat, Distress, Alleviation Model, and accompanying phases, also acts as a small step towards resolving the issue of fragmentation, and recapturing the subjective experience of mental illness.

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Statement of Sources

I, Sarah Pegrum, hereby certify that to the best of my knowledge this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma.

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

All research procedures reported in the thesis received the approval of the relevant Ethics/Safety Committees.

Signature

Date

Chapter 1: The Phenomenon and the Problem:
Fragmentation in Psychology and the Understanding of Anorexia Nervosa

Imagine you have stepped into a room in which on the floor there are numerous pieces of a jigsaw puzzle. Some pieces have amazing detail and depth, while others are quite simple. You may have an indication of how some of the pieces might go together, but no idea of how they all would come together to make a complex, complete puzzle. Then you notice a box with a picture of it, and you realize these pieces combine to create this picture, but you are still perplexed as to how so many pieces are to fit together to create the picture. You are able to describe how the finished puzzle should look by looking at the box, you are able to describe the little pieces, yet the task of putting the pieces together to complete the puzzle is challenging.

Anorexia nervosa, and other psychological disorders, are like a jigsaw puzzle. The individual, who presents to a treatment facility with the diagnosis of anorexia nervosa, is like the complete picture on the box. The psychological theory and the individual's own experiences, are the pieces on the floor. Some theories or experiences appear more detailed or complex than others, just as some pieces of the puzzle appear to have more detail than others. Some theories or experiences appear to be closely related, just as some pieces appear easier to place together. Yet despite having the picture and all the pieces, there is an obvious difference between the two; one is fragmented and one is not.

Anorexia nervosa (also known throughout history as self starvation) is a complex phenomenon, which pending the orientation in which it is being viewed, is associated with vastly different understandings. Throughout history self starvation has been viewed in terms of religion, politics and entertainment. In recent years self starvation has come under the microscope of psychology, resulting in the establishment of a diagnosable psychological disorder of anorexia nervosa. As anorexia nervosa falls under the scope of psychology, it is viewed and understood in a fragmented way, due to the extensive history of fragmentation within psychology. Fragmentation has a significant impact on individuals with anorexia nervosa presenting to treatment in that many may go untreated, may not feel heard or understood, may struggle to engage in treatment, and may ultimately relapse. The aim of this research is to take a small step towards addressing fragmentation in psychology, by attempting to address fragmentation in the understanding of anorexia nervosa.

The Phenomenon: Anorexia Nervosa

Throughout history self starvation and its pathological form, anorexia nervosa, has changed in presentation, not necessarily in terms of presenting symptoms, but rather how the symptoms are interpreted and, of course, by whom. In the early history of self starvation, where religious practice largely guided society, food was not plentiful and times were difficult, self-starvation was interpreted in terms of fasting saints, demonic possessions, political hunger strikes and entertainment (Vandereycken & van Deth, 1994). Yet as food became more plentiful, life became less difficult, and the medical model began to increase in power and dominance, self-starvation was considered a sign of pathology associated with a number of conditions. In time, physicians began to note that the self-starvation they observed was not due to an organic cause, rather to a psychological cause, and hence the condition now known as anorexia nervosa arose. In the late 20th century anorexia nervosa took the interest of a number of professionals. The research interest, not only produced a multitude of theories, but also led to detailed descriptions as to how anorexia nervosa presents; in terms of diagnostic criteria, impact on the individual and others, and trends in presentation of the disorder.

History of Self-Starvation

Religious-Based Fasting

Fasting for Enlightenment.

Most religions, at some stage of their history, have had a form of fasting involving either complete or semi-abstinence from food (Vandereycken & van Deth, 1994). Although there is a vast array of meanings behind the act of fasting, depending on religion and culture, commonly the act of fasting was perceived to be associated with some form of reward. For centuries many believed fasting was a form of cleansing or purifying of oneself, and upon doing so, one was considered more likely to enter heaven, or receive favourable conditions in the future. Another spiritual reward associated with fasting was the receiving of dreams, visions and revelations of the plans of higher powers. Hence, it was perceived that by fasting an individual was more likely to connect with their higher power in the form of visions or revelations. There were also further rewards, in the form of positive social and moral perception, as indicated by numerous

examples throughout history of individuals who were perceived as saints due to their fasting.

Fasting was believed to not only bring one closer to one's higher powers, but also to reduce one's vulnerability to demonic or evil forces. From man's early history, food was perceived as being susceptible to demonic forces, and that by fasting from food, one could ward off potential danger. As a result fasting became part of mourning rituals, whereby with fasting evil forces were warded off, allowing for a smooth transition into the afterlife for the one who had passed away. The perceived susceptibility of food to demonic forces is also believed to be the reason why ancient Egyptians abstained from food prior to entering a holy temple. Fasting and prayer for many were considered an important means of warding off demonic forces (Vandereycken & van Deth, 1994). Fasting was also considered a sign that one was remorseful of one's sins. Complete or semi-abstinence from food was associated with cleansing and purifying an individual, and bringing them closer to positive energy, while consumption of food put a person's soul at risk of being exposed to evil forces.

As traditional, religious-based fasting has decreased in modern times, especially in western cultures, it could become easy for one to assume that the days of religious-based fasting have passed. Serious doubt could be cast upon this assumption if one considers Hesse-Biber's (1996) proposition that a new unspoken religious cult is emerging in western society: the religious cult of beauty. Just as in other religious cults where there is an object of worship, the religion of beauty also has an object of worship in the form of the ideal or beautiful body. Just as other religions have a set of rituals believed to bring one closer to the object of worship, the religion of beauty also has a set of rituals believed to bring one closer to the object of worship, in the form of dieting, exercising and obsessive monitoring processes. There is the existence of ceremonies to mark achievements associated with the object of worship, in the form of pageants and contests. Just as there are priests, guides and gurus to help guide people on their religious path, there exist plenty of guides and gurus that try to guide an individual to their ideal body. The achievement of the object of worship is associated with happiness, success and control.

In the history of religious-based fasting there were two streams of motivators for the act of fasting; to increase the possibility of positive events or experiences, and to reduce the potential for negative events or experiences. Fasting within the religion of beauty also contains two similar streams of motivators. Fasting is believed to bring oneself closer to the object of worship, which is in turn associated with rewards of happiness, success, and adoration. While those not engaging in fasting, or other rituals associated with the religion of beauty, are at risk of putting on weight, losing control, and being rejected by society.

Possessed by demons.

In the 1600s demonic explanations were commonly used to explain both physical and mental illness (Vandereycken & van Deth, 1994). It was not uncommon for a pastor to be called instead of a doctor when one appeared ill. During this time cases of extended fasting were considered to be a result of demonic possession. Hence it was believed, upon prayer or exorcism, the individual would then be able to eat.

Despite many centuries passing between the prominence of demonic explanation, and the present day, remnants of possession theory currently exist. In fact many individuals with anorexia nervosa report hearing voices or having an evil spirit, like a devil, within them that tell them they cannot eat. Claude-Pierre (1997), describes sufferers of anorexia appearing to enter into a “trance”, whereby the negative mind takes over the mind that is in touch with reality. To be broken out of the trance-state the individual needs love and positive messages, just as to be broken out of supposed demonic possession an individual needs prayer or exorcism.

Politically based fasting

Hunger strikes, the act of consciously choosing not to eat in response to a situation, are another form of self-starvation that has been prevalent throughout history. Hunger strikes are a form of public protest or defiance in response to a problematic situation, and are commonly used as a weapon by someone who appears powerless (Vandereycken & van Deth, 1994). The purpose of a hunger strike is to draw attention to a weak position or problematic situation, or to trigger, hasten or enforce negotiations.

A number of theories on the aetiology of anorexia nervosa suggest similar motives in individuals with anorexia nervosa, to individuals engaging in a hunger strike.

For example, in feminist theories, anorexia nervosa is perceived as a response to the problems that women face in society in relation to control, and a multitude of roles (Moorey, 1991; Orbach, 1986; Wolfe, 1991). Similarly, in family systems theories anorexia nervosa is perceived as a response to a problematic family situation by a family member who feels they have no control (Bruch, 1973; Minuchin, Rosman & Baker, 1978). In these instances, through the act of self starvation the individual may be drawing attention to a weaker position (be it in gender or family), or trying to trigger negotiations of change.

Fasting For Entertainment

In the late 19th century, fasting took on a new form, as the art of fasting became a public spectacle. 'Fasting artists' or 'living skeletons' were seen as freaks that would perform their act of fasting for weeks for profit and admiration (Vandereycken & van Deth, 1994). Although, the 'fasting artist' or 'living skeleton' commonly were found in circuses, they were also found in Inns, whereby people who would come to see the 'living skeleton' were encouraged to stay for food and beverages. While the 'fasting artist' was believed to display an act of incredible human strength to resist a basic human need, attention was not gained due to a perceived strength; rather others viewed the artist as a freak or incomplete human.

The act of the 'fasting artist' or 'living skeleton' rapidly decreased after the 1930s which is believed to be due to the rise of other forms of entertainment, the improvement of the social security system in some countries providing alternate means of survivorship, people beginning to associate the act with psychological disorders, and the deeming of the public depiction of the deprived individuals as unethical (Vandereycken & van Deth, 1994).

The act of 'fasting artist' or 'living skeleton' as it was known in the late 19th century may be long gone, but in its place another 'living skeleton' has entered the entertainment circle; the supermodel and to a lesser degree celebrities. These new 'living skeletons' are paid to keep their tiny physique, so it can go on display on catwalks under designer clothing. One look at the popularity of celebrity gossip magazines, with pictures of thin celebrities, and it becomes evident that people still find the life of the 'living skeleton' intriguing, entertaining and even desirable.

Self-Starvation as Pathology: Anorexia Nervosa

Gradually over time, the concept of fasting for religious, political or entertainment reasons declined, and was replaced by the concept of fasting due to physical or psychological pathology. In fact, even during the time in which fasting for religious, political or entertainment reasons were dominant, there was also documentation of fasting due to more pathological reasons.

During the 1700s a number of articles on the abstinence or refusal of food (atrophia) emerged in different medical journals, none of which are considered pioneering articles on anorexia nervosa (Vandereycken & van Deth, 1994). Abstinence from food was associated with a number of conditions, including: a physical illness, nervous atrophie, hysteria, melancholia (excess black bile), love sickness and chlorosis. Of these conditions, the one most closely related to the disorder currently known as anorexia nervosa, is nervous atrophie. In 1689, Richard Morton provided a medical description of individuals who appeared to physically waste away, but displayed no signs of illness that may explain the physical wasting (Vandereycken & van Deth, 1994). This condition was termed nervous atrophy. Although Morton (1689) was largely concerned with the physical presentation of the disorder, he did propose a potential predisposing psychological condition associated with nervous atrophy, in the form of ‘sadness and anxious cares’.

Despite a number of publications arising in the 1600s and 1700s, including that of Morton’s (1689), seemingly touching on the condition now known as anorexia nervosa, the debate as to who officially discovered anorexia nervosa occurs between two men; William Gull and Ernest Lasègue (Vandereycken & van Deth, 1994). Gull is generally credited (in English-speaking countries) with the discovery of the disorder, as in a discussion of the process of making diagnoses made in 1868, he made a brief reference to a condition observed in young females involving food refusal which was yet to have a set diagnosis.

In April 1873 in the French journal *Archives Generales De Medicine* there appeared an article written by Lasègue with the aim of making known a new disorder, which is now known as anorexia nervosa. In the article, based on his observation of eight female cases, Lasègue provided a diagrammatic sketch of the disorder. The article was

translated into English in September 1873, and published in *The Medical Times & Gazette*.

One month after the English version of Lasègue's article was published; Gull presented two lectures at the Clinical Society of London, on anorexia hysterica, which was followed by a publication in 1874. In these lectures and following publication, Gull describes in more detail the condition of anorexia, making reference to his presentation in 1868, and Lasègue's publication (Vandereycken & van Deth, 1994).

Both Gull and Lasègue describe the presentation of anorexia in a very similar manner, and believed the disorder to be psychologically based, not somatic. However, Lasègue tended to place the disorder in relation to hysteria, while Gull was reluctant to use the term hysteria, instead referring to the cause of the disorder being perversions of the ego (Vandereycken & van Deth, 1994). From this point numerous articles began to emerge on the 'new' psychological disorder, and through the work of Charcot (1889), the separation of anorexia nervosa from hysteria began to occur. In 1980 anorexia nervosa entered the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980); a diagnostic manual used to identify psychological disorders based on presentation of a set of symptoms.

In the current *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 1994), there are four main criteria for the diagnosis of anorexia nervosa. The first involves the establishment of the individual's underweight state, which is refusal to maintain body weight above a minimally normal weight for age and height (body weight less than 85% of expected).

The second criterion is presence of an intense fear of gaining weight or becoming fat, this is sometimes referred to as fat or weight phobia. As with many phobias, there is an avoidant behavioural component, which refers to behavioural means undertaken by the individual to avoid exposure to the feared stimuli, which includes responses from over-exercising to the use of laxatives. Secondly, weight loss does not alleviate the fear, in fact for many, weight loss increases the fear.

The third criterion is a disturbance in the way in which one's body weight or shape is experienced, in particular the individual perceives themselves as being larger than what they are, and/or experiences an intense dissatisfaction with their own body.

This can be in relation to the way one's whole body is perceived and experienced, or specific parts of the body. Another form of disturbance is the high level of importance placed on weight and shape in self-evaluation, which involves the individual's sense of self and worth being based entirely on their physical being. A third form of disturbance is denial of the seriousness of the current body weight.

The final current DSM-IV (American Psychiatric Association, 1994) criterion is amenorrhea, which is the absence of at least three consecutive menstrual cycles. All four criterion need to be met in order for a diagnosis of anorexia nervosa to be made.

Anorexia nervosa can be further broken into two specific types, a restricting type or binge-eating/purging type. The restrictor type restricts food intake and does not tend to engage in binge eating or purging (in the form of excessive exercise, vomiting or laxatives), while the binge-eating/purging type does engage in this behaviour.

Individuals with issues surrounding food and eating but not reaching the anorexia nervosa criteria are often diagnosed with Eating Disorder - Not Otherwise Specified (ED-NOS).

Although the DSM-IV (American Psychiatric Association, 1994) diagnostic criteria are the most commonly used criteria, there is another set of diagnostic criteria that can also be used, *The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines* (ICD-10; World Health Organization, 2004). Similar to the first criterion of the DSM-IV (American Psychiatric Association, 1994), the first criterion in the ICD-10 (World Health Organization, 2004) involves establishment of the individual's underweight state. Unlike the DSM-IV (American Psychiatric Association, 1994), the ICD-10 (World Health Organization, 2004) provides a quantitative measure of Quetelet's body-mass index, suggesting a cut-off point of 17.5 or less.

The second criterion of the ICD-10 (World Health Organization, 2004) makes reference as to how the weight loss is established, in the form of "self induced avoidance of 'fattening foods', or one or more of the following means: self-induced vomiting, self-induced purging, excessive exercise, use of appetite suppressants and/or diuretics".

Similar to the DSM-IV (American Psychiatric Association, 1994), the ICD-10 (World Health Organization, 2004) also makes reference to the presence of body-image

distortion, in particular the over-valuing of being low-weight, and the intrusive fear of fatness.

The ICD-10 (World Health Organization, 2004) also has amenorrhea as a diagnostic criterion, as a marker of endocrine system changes, but it also contains a criterion for males in the form of a loss of sexual interest and potency, which also reflects changes in the endocrine system.

The ICD-10 (World Health Organization, 2004) also makes references to pre-pubertal onset, containing the criterion of pubertal events being delayed or arrested in early onset cases.

Anorexia Nervosa, Beyond the Diagnosis

Diagnostic criteria provide a means of identifying, and communicating knowledge of the disorder, and as such are an oversimplification of the presentation of a complex disorder. Anorexia nervosa, like other psychological disorders, stems beyond the diagnostic criteria, and has a physical and psychological impact, not only on the individual, but those surrounding the individual and society in general.

Starvation has a significant impact on the body, the processes of which is to be discussed in the following chapter, in a section on biological processes of anorexia nervosa. Although research is ongoing, into both the short-term and long-term impact of anorexia nervosa at a physical level, the list of complaints associated with disorder is significant. These complaints include: fertility problems, osteoporosis, kidney dysfunction, reduced metabolic rate, cardiac irregularities, anaemia, reduced concentration, hypoglycaemia, abdominal pain, fainting and, ultimately for some, death (Sharp & Freeman, 1993). A number of these problems do not cease upon recovery, for example, individual's who have had anorexia nervosa are at increased risk of developing osteoporosis and cardiac arrest later in life (Gaskill & Sanders, 2000).

The impact of anorexia nervosa stems beyond the physical, and into the psychological, with a number of psychological complaints and co-morbid conditions being observed with the disorder (Gambill, 1998; Herzog, Kellog, Sacks, Yeh, & Lavori, 1992; Herzog, Nassbaum, & Marmor, 1996; Hudson, Pope, Jonas, & Yurelan-Todd, 1983; Rastum, Gillberg, & Gillberg, 1995; Toner, Garfinkel & Garner, 1988). Mood disorders are particularly common co-morbid conditions observed with anorexia nervosa,

with approximately up to 80% of individuals with anorexia nervosa also struggling with depression, anxiety or both (Hudson et al., 1983). There is ongoing debate as to which of the conditions pre-dated the other, and how one may trigger the other. It is believed that for half of those who are observed with co-morbid anorexia nervosa and depression, depression was the pre-existing condition (Gambill, 1998).

Yet anorexia nervosa does not only affect the individual with the disorder. A diagnosis of anorexia nervosa evokes intense feelings of disbelief, fear, horror, concern, betrayal and anger in the parents or caregivers of the anorexic individual (Duker & Slade, 2003). As the disorder progresses, carers, partners and siblings, continue to experience stress, anxiety and depression. If acceptable treatment is unavailable, the impact is even greater, including feelings of stress, anxiety, depression, anger, fear, guilt, powerlessness, social isolation and responsibility.

Disruption within the family is also not unusual, as each family member finds their own way of coping with having anorexia nervosa within the family (Duker & Slade, 2003). Jealousy and estrangement is not uncommon within families in which anorexia is present.

Often in order to treat the disorder, some families need to travel frequently or over long distances. This can be costly and cuts into working time. It is not uncommon for a parent or caregiver to take time off work, or cease working altogether in order to care for an individual with anorexia nervosa. This can create a financial burden for the family, which may already be experiencing financial difficulties due to the cost of treatment, and the expenses surrounding treatment. Hence, anorexia nervosa is costly to society, with many sufferers, and often their carers as well, being unable to reach their full potential.

Anorexia nervosa effects society like a pebble thrown in a pond, with the diagnostic criteria reflecting the initial impact on the water by the pebbles, and ripples reflecting the spreading influence felt from that initial impact. Unlike the impact of a pebble into water, the impact of anorexia nervosa is devastating, and for many, long lasting.

Incidence and Prevalence of Anorexia Nervosa

The estimated lifetime prevalence of anorexia nervosa is approximately 2.2%, and the incidence rate of the disorder is estimated at 8 persons per 100000 per year (Hoek, 1996; Keski-Rahkonen et al., 2007). There is ongoing debate over trends in the incidence

and prevalence of anorexia nervosa, and this includes whether there has been an increase, and whether the increase is due to increased triggers for the disorder (such increased prevalence of the thin ideal), or due to increased awareness and thereby identification and access to treatment (Brumberg, 1988). It has been suspected, and observed in certain populations that the incidence of anorexia nervosa has increased (Eagles, Johnston, Hunter, Lobban, & Millar, 1995; Steinhausen, 2002). Yet other studies suggest that a significant increase in incidence occurred between the years 1930 to 1970, but incidence rates have since stabilized (Bulik, 2006; Hoek & van Hoeken, 2003). While other studies, suggest there is no evidence of an increase in prevalence or incidence of anorexia nervosa (Currin, Schmidt, Treasure, & Hershel, 2005; Fombonne, 1995).

Females living in societies where the thin ideal is present are most at risk of developing anorexia nervosa (Keski-Rahkonen et al., 2007; McCarthy, 1990; Miller & Pumariega, 2001). Approximately 90-95% of anorexia nervosa cases are females (Hoek, 2006; Wittchen & Jacobi, 2005). Anorexia nervosa is also a disorder that predominantly begins to manifest in adolescence, and although there has been suspicion that average age of onset may be decreasing, this is yet to be confirmed (Keski-Rahkonen et al., 2007).

The Problem and the Phenomenon: Fragmentation of Psychology

Leading to Fragmented Understandings

Psychology is a vast discipline, comprising many different sub-disciplines and theoretical paradigms (Yanchar & Slife, 2000). As anorexia nervosa is under the scope of psychology, it has fallen victim to a significant issue that has been present throughout psychology's history in varying forms at varying levels: fragmentation. The debate as to the impact of fragmentation in psychology is ongoing, and in recent years attempts have been made to unify the field, however, these attempts have been perceived as being as fragmented as the field (Kendler, 1983; Staats 1983). As a result of these ongoing multiple levels of fragmentation, it is believed by some that psychology's status as a science may be in jeopardy (Staats, 1983), and that, correspondingly, knowledge and understanding gained in psychology of the subjective experience of mental illness, including anorexia nervosa, is also fragmented.

Psychology: Field in general

In psychology, there are those who conduct research (the scientists), and there are those who practice (practitioners or applied psychologists), and unfortunately the two do not cross over as often as may be necessary (Barlow, Hayes, & Nelson, 1984). Those conducting research are doing research to learn about a particular phenomenon, and to gain an understanding that can then be implemented in field. However, over the years, applied psychologists have doubted the ability of traditional scientific research to facilitate improved practice (Hoshmand & Polkinghorne, 1992). Applied psychologists have felt that two types of knowledge exist, which are at times conflicting; knowledge obtained from scientific research, and knowledge obtained from practical experience (Hoshmand & Martin, 1995; Hoshmand & Polkinghorne, 1992; Polkinghorne, 1991). Thus, there is fragmentation in the understanding of the subjective experience of a mental illness; as there is a perceived difference in understanding of the experience, based on whether that knowledge is achieved through practice or research. As a result, there has often been a gap in psychology between knowledge generated by research, and the application of this knowledge, creating a rift between applied and pure psychology.

The tension between the scientific and applied psychologists has existed for the majority of psychology's history (Altman, 1987). This tension reached boiling point a number of times early in psychology's history, whereby the formation of separate formal organizations of practitioners and scientists occurred. It was only after World War II that attempts were made to integrate scientific and applied psychology. A reflection of the attempt to integrate scientific and applied psychology is the trend towards evidence-based practice, whereby research is used to support the implementation of a specific treatment (Yanchar & Slife, 2000).

In relation to anorexia nervosa, such a gap between applied and scientific psychology does exist. However, in recent years attempts have been made to close the gap, with increasing clinicians also working as researchers, and researchers increasingly tying their work to the clinical field. Yet, movement towards bridging the gap is fraught with difficulties, which is evident when one looks at the level or scope of understanding required by the different roles of scientific and applied psychologists. Applied psychologists working in the field with those who struggle with anorexia nervosa are

often required to understand the disorder in the context of the individual, the individual's history, those surrounding the individual and the environment. While scientific psychologists, although they may acknowledge and know of such contexts, the scope or level of understanding required is often confined to the specific variables of that research. When those in the scientific role attempt to broaden their scope or level of understanding to the level of complex context, something which is required of the applied psychologist, numerous methodological difficulties are encountered.

These difficulties encountered in moving scientific and applied psychology closer together in relation to anorexia nervosa, reflect a fraction of that encountered in the general psychology field, whereby a number of questions exist that continue to create tension between applied and scientific psychology. The first question is whether scientific methodology can adequately measure the therapeutic process (Hoshman & Polkinghorne, 1992). Many therapies or treatments cannot be tested using traditional scientific methods; as a result these therapies or treatments, although they may help many, may be viewed as non-scientific and of dubious credibility (Leahey, 1992). There are also questions over how to define and measure therapeutic outcomes. Based on one's definition of a positive therapeutic outcome, one may get vastly different results. Thirdly, there is the question of where the individuals presenting to treatment, and their needs, history and context, fit in relation to evidence-based therapy. The individual, and what they bring to therapy and their subjective experience of therapy, can easily be lost in research and practice. As a result, the individual's needs may not be met if one is too heavily reliant on research for their practice (Hoshmand & Martin, 1995). Hence, the schism between applied and scientific psychology, creates a fragmentation in the understanding of the subjective experience, and therefore adds to the number of separate pieces in the puzzle.

Scientific Psychology

Scientific psychology, involves researching different phenomena to increase understanding, and is also an area of psychology that is a victim of fragmentation (Yanchar & Slife, 2000). At the core of the fragmentation is the question; can or should the understanding of the human subjective experience of a phenomenon be gained using just one methodology (that is the scientific method)? There are two opposing beliefs that emerge in response to this question. The first comes from foundationalism, which is

associated with the belief that one methodology can and should be used in the study of all phenomena (Hoshmand & Martin, 1994). By using one method there is one standard, which in turn allows for the comparison of knowledge (Danziger, 1990). The assumption behind foundationalism's belief is that there is only one reality, and there is only one research methodology to access that reality (Slife & Williams, 1995). To date research based on foundationalism has dominated research on anorexia nervosa. However, foundationalism has been criticized by a number of others in the field, who note that in using one method a full understanding of a phenomenon cannot be gained (Hoshmand & Martin, 1994; Minke, 1987; Polkinghorne, 1983).

The second belief, which is associated with methodological pluralists, is that there are a number of variations in methodology, under the umbrella of naturalistic scientific investigation, which can be applied to the investigation of a necessarily historical phenomenon (Polkinghorne, 1983). Methodological pluralists are open to the possibility of multiple realities, contingent historical events, and the need to use different methods to access these realities. Under this position the researcher is responsible for selecting a methodology that is appropriate for the research question they are asking. In recent years there has been a slight increase in research in the field of anorexia nervosa that is based on methodological pluralism's principles. A perceived weakness of methodological pluralism is that multiple methods may create more fragmentation and difficulties in the comparison of knowledge, as there is no one standard (Staats, 1983).

The fragmentation in scientific psychology extends beyond the battle between foundationalism and methodological pluralists, with battles over which methodology is more valid ongoing in the literature. Depending on a researcher's stance, be it foundationalist or methodological pluralist, and methodology chosen vastly different knowledge and understanding can be gained on a phenomenon, which again can further fragment the understanding of the subjective experience of mental illness.

The fragmentation at the level of scientific psychology does not end at methodology, rather it continues when one asks the question, of what is the subject matter under investigation (Miller, 1985; Staats, 1983)? A researcher in the process of developing their research first separates their subject matter from psychology as a whole, by defining it in terms of a theoretical orientation or area of interest. Research is more

likely to be rewarded, in the form of grants and publications, if it is perceived as unique and innovative (Maher, 1985). Hence, the researcher may separate the subject matter further, removing it from a theoretical orientation, and defining it in a subtly different way in an attempt to present their research as original. The product of this process is that a subject matter becomes fractured, and knowledge of that subject matter in turn is increasingly fragmented. The production of specialized journals representing different theoretical orientations is a reflection of such fragmentation (Hoshmand & Martin, 1994; McIntyre, 1985). It is of no surprise that, with such level of fragmentation in definition of subject matter, applied psychologists have struggled to apply knowledge gained from research in their practice. With increasing specification, and fragmentation in the definitions, there is a loss of the context or the individual, in which the subject matter is observed.

Theoretical Psychology

The theoretical level of psychology refers to the theory used to explain and understand a phenomenon. Theoretical psychology, at its foundation was fragmented, as indicated by differences amongst thinkers in perception as to what should be the appropriate subject matter in the early development of the field of psychology (Gardener, 1992; Kendler, 1983; Leahy, 1992). Leahy (1992) identified at least three areas from which psychology was founded; the study of consciousness, the study of the unconscious, and the study of adaptation. From these different areas of focus, different and sometimes incompatible theories and methods were developed.

Continued fragmentation of theory and theorists would occur throughout psychology's history due to differences in values, and conceptions of human nature (Yanchar & Slife, 2000). Kimble (1984) suggests that theories in psychology differ based on whether they evolve from scientific values, or from humanistic values. Scientific and humanistic cultures are proposed to differ significantly in opinions in relation to philosophical issues of human nature, determinism versus indeterminism, scientific values versus human values, objectivism versus intuitionism, and elementism versus holism. The split in theoretical psychology between scientific and humanistic values is similar to the split in scientific psychology between foundationalism and methodological pluralism (Yanchar & Slife, 2000). Other theorists have suggested that the fragmentation

in theoretical psychology is more complex than simply a differing in values between scientific and humanistic psychology (Rychlak, 1993; Staats, 1987). It has been suggested that even within scientific and humanistic culture there is further fragmentation and differing in values (Staats, 1987).

As differing theoretical orientations evolved over time, the fragmentation within the field was exasperated by a tendency for interest in a particular theoretical orientation to involve intense partisanship (Danziger, 1990). With membership to a particular theoretical orientation came rivalry, as members from different theoretical orientations would battle for theoretical supremacy (Staats, 1991). As a product of the rivalry, communication and sharing between orientations would break down, and be replaced with a criticism of the opposing theoretical orientation.

The multitude of competing schools of thought currently observed in psychology, is a reflection of the history of fragmentation and rivalry. Understanding and knowledge of the subjective experience of mental illness is therefore separated into the different schools of thought. As the many schools of thought are competing, often knowledge and understanding from the different schools are kept separate (Staats, 1991). In the following chapters, whereby theory and hypotheses from four different schools of thought are discussed, such fragmentation in the understanding of anorexia nervosa is demonstrated, as well as its impact. However, it is important to note that in recent years there has been a change in the field, with more and more schools of thought attempting to bring together their knowledge in a meaningful manner.

Applied Psychology

Applied psychology refers to the practical implementation of theory in the form of treatment or therapy. As the theory in which a psychologist draws upon for their psychological practice is fragmented, it is difficult for them to conceptualize phenomena and practice in a unified manner. The many different specializations within psychological practice are a reflection of how fragmentation at other levels of psychology, has led to fragmentation in practice (Staats, 1991; Yanchar & Slife, 2000). This in turn may create an environment whereby psychological practice is so specialized, an individual will be required to see a multitude of specialists to address the array of issues behind the presenting symptomatology. Other psychologists, have expressed a concern of the effect

of increasing fragmentation in the practice psychology, for example Spence (1987) stated:

In my worst nightmares I foresee a decimation of institutional psychology as we know it. Human experimental psychologists desert to the emerging discipline of cognitive science; physiological psychologists go happily to departments of biology and neuroscience; industrial/organizational psychologists are snapped up by business schools; and psychopathologists find their home in medical schools. (Spence, 1987)

Anorexia nervosa has fallen victim to fragmentation due to specialization in the applied field. Anorexia nervosa is an eating disorder, and eating disorders are increasingly perceived as a specialized area requiring specialized training and treatment. Hence, those seeking treatment for anorexia nervosa have a limited range of treatment services available, as they are perceived as having specialized needs. The specialization is particularly problematic when the individual with anorexia nervosa has co-morbid diagnoses.

Diagnostic manuals also play a role in fragmenting the understanding of human experience. In a diagnostic manual, the complex subjective experience of mental illness is fragmented, by reducing the experience into a label with a small collection of symptoms. The mental illness is removed from the context of the individual and the environment. This was reflected earlier in this chapter, when it was noted and demonstrated that the experience of anorexia nervosa stems far beyond what is captured by diagnostic criteria.

Impact of Fragmentation

Fragmentation of the understanding of subjective experience of mental illness can lead to a number of difficulties. At the level of training psychologists, there is debate over which of these many schools of thought need to be taught, in what way and in what order (Staats, 1991). As there are a multitude of disciplines and schools of thought it is difficult for those in the field to learn all of them, resulting in those in the field developing either a general knowledge of a number of schools of thought, or a specialization in one or a small handful of schools of thought. Hence, those entering and practicing in the field are at risk of either lacking a structure which they could use to pull multiple pieces of general information together in a meaningful way, or potentially having a narrow or specialized knowledge base (Staats, 1991; Sternberg & Grigorenko, 2001; Yanchar & Slife, 2000). In

other words, for many practitioners, and researchers alike, they are only able to see one part of the picture, or they are able to see many pieces of the picture but are unable to pull the pieces together in a coherent way.

When one is only able to see a small part of the picture, it is easy for one to assume that there are no other pieces, and that what one sees is complete picture. It is in this state, that a professional is at risk of oversimplifying the subjective experience of the individual presenting for treatment.

When one is able to see a number of pieces of a puzzle, but has no means of putting the pieces together in a coherent and meaningful manner, one may attempt to put the pieces together, even though they may not appear coherent. It is in this state that a practitioner may be at risk of being selective in what parts of the individual experience they attend to, and try to make links within an individual's experience, where there may be no links at all.

Another problem, as a result of the multi-level fragmentation of psychology, is that the theoretical understanding of a disorder may not reflect the actual experience of those suffering from a mental illness. In other words, what one perceives as being pieces of the puzzle, as proposed in theory, may not actually be pieces of the puzzle of subjective experience. Practice based on this knowledge, may therefore not meet the individual's needs, or treat the entire problem.

In any of the above instances, practice based on fragmented knowledge has an impact on the individual presenting for treatment. First, as the practitioner's knowledge and understanding may appear different to the presenting individual's own complex subjective experience, it is possible that the presenting individual will feel as if the practitioner is not hearing or understanding their experience. This in turn can be detrimental to the therapeutic relationship, and can impact on future therapeutic relations and play a role in an individual's decision to seek help in the future and engage in treatment.

As the subjective experience of mental illness is more complex than what the therapy or treatment considers or allows, a number of aspects of the mental illness may go untreated (Harris, 1991). This may result in the individual not making progress in

treatment, or places them at increased risk of relapse. In other words, the puzzle either does not get put together, or is put together in such a way that it soon falls to pieces.

All of these impacts of fragmented understanding on individuals presenting for treatment, are frequently noted by individuals with anorexia nervosa. Many individuals with anorexia nervosa and their families have not felt heard or understood when presenting for help. Many individuals have had the disorder for a significant period of time before it was identified and treated. Many individuals with anorexia nervosa have struggled to connect with and make progress in treatment. In fact recovery rates from anorexia nervosa tend to be relatively poor compared to other psychiatric illnesses; of those who physically survive (the crude mortality rate for anorexia nervosa is 5%) approximately 46% fully recover, 33% improve but still remain symptomatic, and 21% experiencing a chronic course of the disorder (Steinhausen, 2002). Anorexia nervosa is also associated with high relapse rates, with estimates ranging from 33% to 63% (Cockell, Zaitsoff, & Geller, 2003; Field et al., 1997; Herzog et al., 1999; Keel & Mitchell, 1997; Olmstead, Kaplan, & Rockert, 1994). These experiences combine to demonstrate that understanding of anorexia nervosa has fallen victim to fragmentation of psychology, resulting in the loss of understanding of the subjective experience of the disorder, which in turn has a significant impact on individuals with the disorder.

Resolving the Issue of Fragmentation

The issue of fragmentation in psychology, will not be resolved in one thesis, rather it will take time and the combined effort of a large number of professionals. Efforts have already been made by professionals in the psychology field to tie together knowledge in the form of models, of particular note is the Transtheoretical model (TTM) (Prochaska, DiClemente & Norcross, 1992). Prochaska and colleagues began developing the TTM in 1977 based on an analysis of different theories of psychotherapy (Prochaska & DiClemente, 2005), hence within the model knowledge from different forms of psychotherapy can be tied together in a meaningful manner. The TTM is intended to explain and predict a person's success or failure in achieving a proposed behavioural goal (Prochaska, DiClemente & Norcross, 1992). The TTM is predominantly used in the addictions field, but is increasingly being used in the understanding of eating disorders.

According to the TTM lasting behavioural change involves the process of progressing through a series of stages, and a number of processes exist to assist an individual's movement through the stages (Prochaska, DiClemente & Norcross, 1992). The stages consist of:

Precontemplation: The individual does not believe they have a problem, and does not intend to take action.

Contemplation: The individual recognizes there is a problem, intends to change but are not yet ready to change.

Preparation: The individual has decided they need to change, and are preparing to take action.

Action: The individual is actively engaging in behavioural change.

Maintenance: The individual is building on gains made in action, and actively attempting to prevent a slip or relapse.

Recovery: The individual has changed their behaviour, and are not tempted to return to old behaviours.

To assist movement between the stages it is proposed that individual's turn to approximately ten processes of change, and will simultaneously use different processes depending on their stage of change (Prochaska & DiClemente, 1992). These processes as well as the stages are captured in table 1. According to the TTM using the understanding gained from the stages and processes of change, interventions can be tailored to match and individual's needs according to their stage, and thereby increasing the efficacy of the intervention (Prochaska & DiClemente, 1992).

Table 1: Processes of Change

Process of Change	Description	Stage of Change
Consciousness Raising	Obtaining information about self, the problem and change.	Assist movement from Pre-contemplation to Contemplation.
Dramatic Relief	Experiencing and expressing feelings about the problem and change.	Assist movement from Pre-contemplation to Contemplation.
Environmental Re-evaluation	Exploration of the problem in relation to the environment.	Assist movement from Pre-contemplation to Contemplation.
Self Re-evaluation	Exploration of the problem in relation to personal values.	Assist movement from Contemplation to Preparation.
Self Liberation	Process of making a choice and committing to change.	Assist movement from Preparation to Action.
Stimulus Control	Control situations that may trigger behaviour.	Assist individuals in Action and Maintenance.
Helping Relationships	Turning to and utilizing trusting and accepting supports.	Assist individuals in Action and Maintenance.
Counter Conditioning	Substitution of old behaviours with healthy alternatives.	Assist individuals in Action and Maintenance.
Reinforcement Management	Developing means of rewarding self for change.	Assist individuals in Action and Maintenance.
Social Liberation	Exploration and acceptance of a lifestyle without the problem behaviour.	Assist individuals in Action and Maintenance.

Although the TTM is extensively used, it has faced a degree of criticism. One of the main criticisms is the lack of experimental evidence for the model. A number of studies have noted that stage based interventions are no more efficacious than non-stage based interventions in behaviour change (Bridle, 2005), including in relation to smoking cessation (Aveyard et al., 2006; Aveyard, Massey, Parsons, Manaseki, & Griffin, 2009; Riemsma et al., 2003), prevention of pregnancy and sexually transmitted disease (Horowitz, 2003), and dietary interventions (Salmela, Poskiparta, Kasila, Vähäsarja, & Vanhala, 2009).

However, in a number of the studies intervention were only tailored according to the stages of change, and not the other core components of the TTM, such as the processes of change (Prochaska, 2006). Prochaska (2006) proposed that had the interventions been tailored based on all components of the TTM positive results may have been observed. Evidence exists for positive behavioural change when interventions are tailored based on a number of components of the TTM (Noar, Benac, & Harris, 2007). Poor design in the form of small sample size, poor recruitment rates and high loss at follow-up were also noted in relation to studies not observing a significant difference between stage based interventions and non stage based interventions (Prochaska, 2006; 2009; Spencer, Pagell, Hallion, & Adams, 2002).

Another concern in relation to evidence of the TTM is that the majority of research indicating support for the model has been cross-sectional (Sutton, 2001). Longitudinal research is needed to provide stronger indication of causality.

Another criticism of the TTM is over the arbitrary dividing lines used to form discrete categories, which are not necessarily an accurate reflection of an individual's experience (Sutton, 2001; Wilson & Schlam, 2004). However, Prochaska (2009) has noted that it was necessary for the experience of change had to be converted to discrete stages to assist the decision making, and treatment planning process.

In relation to the TTM and eating disorders, although there is increased acknowledgement and use of the TTM, particularly the stages of change (Blake, Turnbull, & Treasure, 1997; Geller, Brown, Zaitsoff, Menna, Bates & Dunn, 2008; Geller, Cockell, & Drab, 2001; Geller, Drab-Hudson, Whisenhunt, & Srikaneswaran, 2004; Levy, 1997; Ward, Troop, Todd, & Treasure, 1996), more research and detail is needed on the processes of change and the subjective experience of change specific to eating disorders.

Although models like the TTM move the field closer to addressing the issue of fragmentation, it is only one small step on the path of many. The issue of fragmentation will not be resolved by throwing out or dismissing the TTM and the pieces of knowledge that exist in the field and starting from scratch, as the contribution of the TTM and each of the different pieces of knowledge to the understanding of mental illness to date is too significant. The role of this thesis is to acknowledge the fragmentation, and take a small

step towards meaningfully unifying fragments of knowledge of a particular mental illness, anorexia nervosa, from both theory and research, as well as from the experience of individuals who have recovered from the disorder. The small step towards meaningfully tying-together pieces of knowledge from different sources taken within this thesis consists of three different phases. The first phase involved identification of the pieces, from both theory and experience. In the following chapters theory and hypotheses (or pieces) from four different psychological paradigms (biological, social-cognitive, family and existential) currently contributing to the understanding of anorexia nervosa are discussed. These pieces, through the research process of this paper, were then triangulated with the experiences of individuals who have recovered from the disorder, and further pieces are added from their experiences.

The second phase, conducted throughout the research process but particularly in data analysis, involved organizing the pieces with the use of an adapted form of Heidegger's worlds of being (1962), which is discussed in chapter four. Once the pieces were organized, data analysis entered a phase of questioning and comparison to develop a model that meaningfully tied together pieces of experience over the course of the disorder and reflected the complexity of the experience of anorexia nervosa.

Summary

Anorexia nervosa is complex disorder that has a long history prior to it being defined as a psychological disorder. However, as anorexia nervosa is now identified as falling under the umbrella of psychology, it has fallen victim to a problem that has been present throughout the history of psychology: fragmentation. Fragmentation at the different levels throughout psychology's history has resulted in the loss of understanding of the subjective experience of anorexia nervosa. This in turn has had significant impact on individuals suffering from disorder, particularly when presenting for treatment, as it reduces early identification of disorder, efficacy of treatment and increases risk of relapse. Yet the issue of fragmentation is vast, and unlikely to be addressed in one research paper. However, the focus of this thesis is to take a small step toward reducing the fragmentation of understanding of anorexia nervosa through three phases; identification of the pieces of knowledge and experience, organization of these pieces of

knowledge and experience, and meaningfully tying the pieces together to capture the subjective experience of anorexia nervosa.

Chapter 2: Pieces of Knowledge of the Aetiology and Maintenance of Anorexia Nervosa

The devastation created by, and the complexity of anorexia nervosa has resulted in many clinicians and researchers, from all different fields and backgrounds, exploring how an individual develops the disorder, and how the disorder is maintained. During this chapter theory and hypotheses (pieces of knowledge) from four different paradigms (biological, social-cognitive, family and existential) that contribute to the understanding of the aetiology and maintenance of anorexia nervosa are explored.

From the biological paradigm there are two main (possibly interrelated) streams of thought as to the biological processes in the aetiology of anorexia nervosa (role of genetic vulnerability, and role of an imbalance of specific physiological systems), while the role of starvation appears to be the main stream of thought in relation to the maintenance of anorexia nervosa. Yet knowledge generated from the biological paradigm frequently encounters opposition in the form of the nature/nurture debate, which questions the extent to which biological, as opposed to environmental forces, contribute to the aetiology of anorexia nervosa.

A part of the environment that is frequently raised in relation to anorexia nervosa is the media. The media's role in the aetiology and maintenance of anorexia nervosa has been explored from the social-cognitive paradigm in terms of social learning and social comparison. Yet a large number people are exposed to the media, and only a small few develop anorexia nervosa, hence other elements of the environment may be contributing to the aetiology and maintenance of anorexia nervosa. One of the earliest, and probably most enduring, aspects of the environment that shapes an individual is the family unit. A number of processes within the family unit (such as enmeshment, poor communication, and modelling) are perceived to play a role in the aetiology and maintenance of anorexia nervosa. However, many individuals with anorexia nervosa have come from families where these processes are not present, and within families where these processes are present not all family members develop anorexia nervosa.

An alternative perspective that also contributes to the understanding of the aetiology and maintenance of anorexia nervosa comes from the existential paradigm. Within the existential paradigm anorexia nervosa is explored in relation to life-meaning and existential anxiety. However, as knowledge and theory on the relationship between

life-meaning and anorexia nervosa is in its infancy, the strength and clarity of the association is yet to be firmly established.

The knowledge generated from these paradigms, as well as other paradigms, has contributed significantly to the understanding of anorexia nervosa. Yet, what is evident throughout this chapter is that the knowledge gained to date is fragmented and struggles to capture the individual's experience as a whole, hence there are gaps in the understanding of the complex experience of the aetiology and maintenance of anorexia nervosa.

Biological Aetiology and Maintenance of Anorexia Nervosa

From the early beginnings of the condition known as anorexia nervosa there has been speculation as to the role of biological factors in the aetiology of anorexia nervosa. Of particular focus in the literature, is the possible heritability of the disorder. Yet there is also consideration and exploration of the role of a physiological basis to the disorder, in the form of irregularities of specific agents (such as serotonin, and leptin). While, investigations into both these streams of thought have confronted difficulties, nevertheless future research with increasing technology, appears to be a promising avenue for gaining clarity as to the nature of biological factors in the aetiology of anorexia nervosa. More clarity exists in relation to the physiological changes associated with starvation that play a role in maintaining the disorder. However, the physiological changes associated with starvation, in themselves do not maintain anorexia nervosa.

In the early descriptions of anorexia nervosa, it was proposed that hereditary antecedents played an influential role in predisposing individuals to anorexia nervosa (Vandereycken, & van Deth, 1994). This hypothesis is still present in society, in that many believe that individuals, who develop anorexia nervosa, were more vulnerable to the disorder as a result of genetic factors. This hypothesis has been supported by a number of family and twin studies.

If anorexia nervosa has a genetic component, then one would expect an increased likelihood of a diagnosis of anorexia within the family of an anorexic individual than that of the general population. Gershon et al. (1984), in one of the first controlled studies, examined 99 first degree relatives of 24 anorexic probands, and 265 first degree relatives of 44 controls. In families of individuals with anorexia nervosa, 2% of relatives had a

diagnosis of anorexia nervosa, and 4.4% had a diagnosis of bulimia nervosa. While in families of the controls, 0% of relatives had a diagnosis of anorexia nervosa, and 1.3% of relatives had a diagnosis of bulimia nervosa.

Holland, Sicotte, and Treasure (1988) observed similar results in a combined twin and family study. Of the 121 first degree female relatives of 45 (25MZ, 20DZ) twins with anorexia nervosa, 6 (4.9%) of other female first degree relatives had a history of anorexia nervosa.

In a much larger study than both Gershon et al. (1984) and Holland et al. (1988), Strober, Lampert, Morrell, Burroughs and Jacobs (1990) studied 387 first degree relatives of 97 anorexic probands, 738 relatives of 66 affective disorder probands, and 117 non-affectively psychiatrically-ill probands. In families of individuals with anorexia nervosa, 2.1% of relatives had a diagnosis of anorexia nervosa, and 1.3% had a diagnosis of bulimia nervosa. While, in families of the control groups (affective disorder proband and non-affectively psychiatrically probands), 0% of relatives had a diagnosis of anorexia nervosa and 1.1% of relatives had a diagnosis of bulimia nervosa.

These studies indicate is there is an increased incidence of anorexia nervosa, within families in which an individual has received a diagnosis of anorexia. Families of eating disorder probands are roughly 3-20 times more at risk of developing an eating disorder than those in the general population (Halmi, 1992).

Twin studies have also been used to explore genetic vulnerability, as if there is a genetic antecedent to anorexia nervosa one would expect a higher concordance of diagnosis in those who share the same genetic make-up, monozygotic twins (MZ), than those with differing genetic constitution, dizygotic twins (DZ).

One of the first twin studies on anorexia nervosa was conducted by Holland, Hall, Murray, Russel, and Crisp, in 1984, and involved 16 monozygotic twins, and 14 dizygotic twins in which at least one of the twins suffered from anorexia nervosa. Of those 16 monozygotic twins 9 (56%) had a concordant diagnosis of anorexia nervosa. While only 1 out of the 14 (7%) dizygotic pairs were concordant for anorexia nervosa.

A few years later, Holland et al. (1988), conducted a larger study, consisting of 45 twin pairs (25MZ, 20DZ), some of which possibly also participated in Holland et al.'s (1984) previous study. Holland et al. (1988) observed that 14 (56%) of the monozygotic

twins in their study were concordant for anorexia nervosa, compared with only 1 (5%) of dizygotic twins being concordant for anorexia. Holland et al. (1988) estimated that up to 80% of variation observed was accounted for by genetic heritability.

A more recent study by Klump, Miller, Keel, McGue and Iacono (2001) involved assessing 672 16-18yr old twins from a twin registrar, of which 26 (14 MZ, and 12 DZ) were identified as anorexia nervosa probands. The anorexia nervosa probands consisted of participants who met all the criteria, or all except one (13 twin pairs), and participants who were elevated in symptomatology, but not yet at a clinical level (13 subthreshold twin pairs). None of the DZ twins were concordant for anorexia nervosa at a diagnostic or subthreshold level, while 2 (29%) and 4 (57%) of the MZ twins were concordant for anorexia nervosa at a diagnostic and subthreshold level respectively. Using structural equation modelling Klump et al. (2001), estimated genetic factors accounted for 74% of variance in anorexia nervosa and non-shared environment factors accounted for 26% of variance.

In an attempt to overcome problems of small sample size associated with twin studies on anorexia nervosa, Rutherford, McGuffin, Katz and Murray (1993), examined the heritability of symptoms and factors associated with anorexia nervosa, as measured by the Eating Attitudes Test (EAT). One hundred and forty seven monozygotic female twins and 99 dizygotic female twins participated in the study. Forty one percent of variance in overall EAT score was accounted for by heritability. Heritability also accounted for 52% and 44% of the variance in the body dissatisfaction and drive for thinness subscales respectively. Thus, indicating that heritability may play a role in the cognitions and behaviours that drive the disorder, and increase one's risk of developing the disorder. It was also observed that 64% of variance in body mass index was accounted for by genetics, which indicates the role of genetics in determining body size.

In 1999, Kipman, Gorwood, Mouren-Simeoni, and Ades, as well as Fairburn, Cowen and Harrison, reviewed the twin study literature. Kipman et al. (1999) estimated a heritability value of .71 for all published twin studies, including controlled and uncontrolled studies. While Fairburn, Cowen and Harrison (1999) noted inconsistencies in heritability estimates, noting estimates of the role of heritability ranged from 0-70%. Different methodologies and methodological difficulties were referred to in the

explanation of the variability in heritability estimates, including issues of definition of phenotype, diagnostic reliability, violation of the equal environments assumption, and small sample sizes. Indicating, although results appear promising in the support of genetic factors behind anorexia nervosa, the original studies are not without methodological flaws.

Despite support for the role of genetic heritability as indicated by family and twin studies, a number of questions remain in relation to how much of the observed concordance is due to biological factors as opposed to shared environmental factors? With increasing technology allowing for genetic mapping, researchers are moving closer to providing clarification of the strength of the contribution of inherited biology (Costa, Brennen, & Hochgeschwender, 2002; Kaye et al., 2000).

Another area of ambiguity, creating questions of the role of biology in the aetiology of anorexia nervosa, surrounds the nature of the genetic vulnerability to the disorder, as well as how the vulnerability is triggered. These questions include: How does the genetic vulnerability come to manifest as anorexia nervosa? Does one inherit personality traits, such as perfectionism, that increases ones risk of developing anorexia, or does one inherit an altered means of physiological functioning which increases one's vulnerability? What interacts with the genetic vulnerability, to act as trigger to the development of anorexia nervosa? Does an interaction or trigger exist, and is the interaction or trigger at the level of physiology or do other systems, such as social networks play a role?

Although the role of heritability is the dominant biological process currently being examined in the literature, there is also speculation as to the role of disturbance in the balance of specific physiological systems, in the form of variations of specific agents, which may be inherited or may be triggered by some form of change. However, the human body is highly complex, with many different interrelating systems and agents within these systems. Knowledge gained from the observation of the anorexia nervosa, has guided the exploration of different systems (serotonin, hormonal and hunger and satiety) and, as a result agents (such as serotonin, and leptin) that may play a role in the aetiology of anorexia have been explored, and identified. Due to the complex nature of

research and associated findings, which are outside the scope of this research, agents will be noted but not the specifics of the research.

One observation that has guided research into specific systems involved in the onset of anorexia nervosa is the relationship between anorexia nervosa and mood disorders (Emmett, 1985). This relationship is indicated by the high prevalence of mood disorders in individuals suffering from anorexia nervosa (Ivarsson, Rastam, Wentz, Gillberg, & Gillberg, 2000; Stice, Presnell, & Bearman, 2001; Wade, Bulik, Neale, & Kendler, 2000), as well as the increased prevalence of eating disorders in families who have a member with a mood disorder (Gershon et al., 1984; Halmi et al., 1991; Lilenfeld et al., 1998; Strober, 1991; Walters & Kendler, 1995). A question frequently raised by clinicians and sufferers alike, which often remains unanswered, is: what came first, the mood disorder or the anorexia nervosa?

Another line of evidence supporting the relationship between mood disorders and eating disorders is the positive response, in the form of reduced symptomatology, to antidepressants observed in some individuals with anorexia nervosa (Ferguson, & Pigott, 2000; Mickley, 2004; Wolfe, Metzger, & Jimerson, 1997). Mood disorders display a strong biological component in the form of also having a strong hereditary component, being associated with a number of biochemical abnormalities, and respond to medication (Emmett, 1985). As anorexia nervosa is related to mood disorders, a group of disorders that show a strong biological component, it has been mooted that the relationship between anorexia nervosa and mood disorders reflects a shared biological component (Gershon et al., 1984; Wade et al., 2000). Research into the potential shared biological component in the aetiology of both these disorders, has tended to focus on the serotonin system (Kaye, Strober, & Klump, 2002; Treasure, & Campbell, 1994; Wolfe, Metzger, & Jimerson, 1997). Serotonin is a neurotransmitter associated with mood, as well as eating and satiety (Lask, & Bryant-Waugh, 2000). Preliminary research indicates alterations in the serotonergic system, in the form of increased serotonin turnover is associated with reduced food intake and increased hyperactivity, in both rats and humans (Bailer et al., 2004; Davis, 1997; Frank et al. 2002; Frank et al. 2001; Halmi, 1992; Hrupka, & Langhans, 2001; Kaye, Strober, & Klump, 2002; Stoving, Hangaard, Hansen-Nord, & Hagen, 1999). Both of which are observed in anorexia nervosa.

The fact that anorexia nervosa requires the individual to override the basic drive to eat and ignore many cues that encourage eating, has led researchers to explore the functioning of these systems, to determine whether this ability reflects an abnormal physiological function (Attia, 2003). However, a vast array of complex processes and systems are involved in eating behaviour, and no single investigation can encompass all of the variables that need to be measured to test the hypothesis (Halmi, 1996).

The observation that many individual's who go on to develop anorexia nervosa engaged in dieting prior to the development of the disorder (Hsu, 1990; Polivy & Herman, 2002), supports the role of a disturbance in the systems involved in hunger and satiety in the development of anorexia. In that, if a disturbance in the processes involved in hunger and satiety play a role in aetiology, one would suspect that individuals who go on to develop anorexia nervosa would respond differently to dieting, resulting in them being able to take dieting to a level of intense self-starvation. An addiction model has been proposed, suggesting that individual's who develop anorexia nervosa become addicted to the physiological changes associated with the act of self starvation (Davis & Claridge, 1998). Thereby dieting is considered a necessary, but not sufficient condition for the onset of anorexia nervosa.

However, in their review of the literature, Jacobi, Hayward, DeZwaan, Kraemer and Agras (2004), suggest the role of dieting as an antecedent to anorexia nervosa is difficult to determine, due to the difficulty separating dieting from the disorder itself. Hence, there may not be a clear link between dieting and anorexia nervosa, as was first thought. Despite these concerns, recent research has begun to focus on the role of leptin (Calandra, Musso, & Musso, 2003; Hebebrand et al. 2003; Monteleone, Fabrazzo, Tortorella, Fuschino, & Maj, 2002) in the aetiology of anorexia nervosa. Leptin is a hormone that plays a significant role in the regulation of appetite and energy. Preliminary research is indicating that low body weight and increased activity are associated with decreased circulating leptin levels (Hebebrand, Exner, Hebebrand, Holtkamp, Casper, Remschmidt, Herpertz-Dahlmann, & Klingenspor, 2003; Inui, 2001; Monteleone, DiLieto, Tortorella, Longobardi, & Maj, 2000; Monteleone, Fabrazzo, Tortorella, Fuschino, & Maj, 2002).

Hormonal systems have also begun to be explored in relation to the aetiology of anorexia nervosa, due to the majority of individuals who go on to develop anorexia nervosa being female (Young, 1991). If hormones play a role one would suspect, like in the hunger and satiety systems, any changes in the system may act as a trigger for a disturbance in the system that may lead to anorexia nervosa. As an individual enters puberty hormonal levels change significantly, and the majority of individuals who develop anorexia nervosa do so around the onset of puberty, when these changes are occurring (Killen et al., 1992), thus providing support for the role of a disturbance in hormonal systems in the development of anorexia nervosa. Oestrogen, a hormone, that plays a role in hunger and satiety, has been the focus of a number of investigations, but as yet there has been no indication of the role of oestrogen in the aetiology of anorexia nervosa (Eastwood, Brown, Markovic & Pieri, 2002; Weiner, 1993; Young, 1991).

Yet, physiological changes are not the only changes that occur when an individual is going through puberty, there are also significant developmental and social changes that are secondary to the physical changes of puberty. As an individual moves through puberty, they move from being a child to an adult and with such change, comes changes in roles, and increased sexuality. These changes can be very confronting and overwhelming for some individuals, so much so it has been proposed that some individuals may turn to anorexia, and the androgenous body and decreased sexual urges, as a means of avoiding the roles and pressures associated with being an adult (Crisp, 1980). Hence, the physiological changes of puberty may not trigger anorexia nervosa, but rather what the changes of puberty mean in terms of becoming an adult woman.

However, the exploration of disturbances within physiological systems, in the form of changes in levels of specific agents, has been fraught with methodological difficulties (such as difficulty localizing and thereby observing specific systems, and small sample sizes). The main questions that create a lack of clarity in relation to the role of a physiological disturbance in the aetiology of anorexia nervosa, are: Are the observed disturbances a contributor or a product of anorexia nervosa, and if they are a contributor, how did the disturbances begin?

The physiological changes that occur with self starvation are believed to propel the individual into the disorder and play a significant role in the maintenance of the disorder. These physiological changes are commonly referred to as starvation syndrome, the knowledge of which largely stems from Keys, Brozek, Henschel, Mickelsen, and Taylor's, (1950) Minnesota starvation experiment, as well as studies on animals (Anderson & Kennedy, 1992; Epling & Pierce, 1988; Hall & Hanford, 1954; Pirke, Brooks, Wilckens, Marquard & Schweiger, 1993; Treasure & Owen, 1997). Keys and colleagues (1950) study is frequently cited when discussing the impact of starvation on one's body. The Minnesota starvation experiment (1950) consisted of 32 young men engaging in a 12 week control phase, followed by a 24 week starvation phase (whereby the men lost approximately 25% of their body weight), and was followed by a recovery phase. The men were observed intensely throughout the phases, and a detailed picture emerged of how the body and mind responds to starvation.

Starvation affects nearly every endocrine system in the body, and thereby changes are evident in a range of areas, including emotions and cognitions. In the initial stages of restriction or starvation, the body's neurotransmitters and chemicals change, resulting in the individual experiencing a 'high' and hyperactivity (Duker & Slade, 2003). However, as the disorder progresses the high and hyperactivity dissipates and is replaced with fatigue, depression, mood swings, extreme distress, irritability, anger outbursts and tearfulness (Keys et al., 1950). As a result, the individual may feel so fatigued and depressed, they lose the sense of hope that they can recover or feel they have lost the energy to fight the disorder. The intensity of the mood swings may also create further social isolation, which may contribute to the maintenance of anorexia nervosa.

At a cognitive level, with persistent reduced food intake, the brain has fewer and fewer resources with which to function. As a result, as the disorder progresses, an individual gradually loses their capacity for complex thought (Keys et al., 1950). The ability to abstractly reason is generally one of the first cognitive processes to go, and as the disorder progresses the individual's style of processing becomes more concrete, and black and white. This is particularly problematic in relation to problem solving, and interpretation of the world. When interpreting the world, instead of using multiple categories, or shades of grey into which to put an experience, the individual has

categories of ‘good’ or ‘bad’, black or white. When engaging in problem solving and decision making the individual struggles to see the full picture, and tends to perceive fewer options to solve the problem; as a result, problem solving and decision making are highly difficult and stressful for the individual. Capacity for forward thinking is also reduced, hence the individual tends to function in the here and now, and decisions are made based on this immediacy. Alertness, judgment and memory are also significantly impaired (Keys et al., 1950).

In this reduced cognitive state the individual’s thoughts become increasingly preoccupied with food, and food falls into the categories of ‘good’ or ‘bad’ (Duker & Slade, 2003). To combat the stress created from problem solving and decision making, the individual follows strict concrete rules. In this realm of black-and-white thinking and rules it is very difficult for the individual to see recovery and the steps required for recovery, or engage in the treatment needed in order to recover.

In chapter 1 some of the physiological complications of the disorder were noted, but this did not reflect how the individual physically feels when in a semi-starved or starved state. At a physical level, when an individual is in a semi-starved or starved state they increasingly feel weak and fatigued, and experience periods of dizziness and headaches (Keys et al., 1950). Yet despite feeling weak and tired, sleep disturbance is also common and the individual struggles to sleep. The individual also becomes increasingly sensitive to light and noise, and is highly susceptible to cold, as there is no body mass to keep them warm. As the stomach has little or no food to process, stomach upsets as well as general gastric discomfort and a feeling of “fullness” is often experienced.

The effects of starvation reduce the individual’s resources (emotionally, cognitively and physically) to recover. While at the same time the impact of starvation draws the individual further into the disorder, by increasing food preoccupation, and making the decision not to eat become easier and easier. Hence, the individual gets trapped in a struggle of part of them not wanting to recover (as food and body is their world), and part of them wanting to recover due to the impact the disorder is having on them (yet they struggle to gather energy and cognitive resources to do so). However,

despite starvation syndrome being relatively well established and acknowledged in the clinical field, few believe that the impact of starvation, on its own, maintains the disorder.

In summary, a number of biological processes have been considered and explored in relation to the aetiology and maintenance of anorexia nervosa. Of particular focus in the literature is the role of a genetic vulnerability to anorexia nervosa, as indicated by family and twin studies. However, evidence is emerging that disturbance of the physiological balance at the level of particular agents (such as serotonin and leptin) may also contribute to the aetiology of anorexia nervosa. Yet, it is difficult to determine whether the physiological imbalances contribute to or are a product of self starvation. The changes associated with starvation, known as starvation syndrome are believed to contribute significantly to the maintenance of anorexia nervosa by trapping the individual in the disorder by reducing physical, psychological and social resources. These pieces of knowledge from the biological paradigm have contributed significantly to the understanding of anorexia nervosa, including; why the disorder is more common in some families (shared genetics), why the disorder predominantly occurs in females (possible imbalance of physiological system), why mood disorders are a common co-morbid condition (possible serotonin imbalance), and why the mind of a sufferer of anorexia nervosa appears distorted (starvation syndrome). However, understanding gained from the biological paradigm struggles to explain the possible increasing diagnosis in recent decades, the possible decrease in age of onset, and why the disorder is more prevalent in cultures focused on the thin ideal. The biological paradigm faces further challenges coming from the nature/nurture debate, which raises the question of how much is the observed phenomenon due to biology as opposed to environment.

Social-Cognitive Aetiology and Maintenance of Anorexia Nervosa

Society and interactions with society are part of the environment that shape an individual's identity, thoughts and behaviour. Although there are many parts society that shape an individual, including family and peers, the media is part of society that has frequently been scrutinized regarding its role in the aetiology of anorexia nervosa, through the extensive portrayal of the thin ideal. Portrayal of the thin ideal, combined with social cognitive processes of social learning and social comparison are believed to

increase an individual's risk of developing anorexia nervosa by decreasing self esteem, and increasing body dissatisfaction, drive for thinness and disordered eating behaviour. Upon the anorexia nervosa developing these processes continue to play a role in maintaining the disorder, as the individual's weight loss is reinforced. However, both these processes are not as simple as they initially appear, with a number of factors both within and outside of the individual, increasing or decreasing their vulnerability. An understanding of these processes provides insight into the initial and early stages of the disorder, yet struggles to explain and encapsulate the more severe end of the disorder. As a result a number of questions are left unanswered, such as: why do some people diet and others develop anorexia nervosa, and why does the behaviour continue after rewards appear to cease?

Social Learning Theory

According to Bandura's (1977) social learning theory people learn by observation, and learning occurs with the combination of cognitive, behavioural and environmental factors. Bandura's social learning theory (1977) was based on his observations made during the "bobo" doll experiment, whereby children observed a "model" interact with a doll. After the observations the children were encouraged to play with the doll. What was observed was that children freely mimicked the behaviour of the "model". This form of observational learning has also been called modelling, as the behaviour is modelled on that of the original, and has been used to explore the relationship between television viewing and aggression in children (Brown, & Witherspoon, 2002; Subrahmanyam, 2003).

Bandura (1977) proposed four steps in order for a behaviour or attitude to be learned:

- 1) Attention: If one is going to learn something, one must pay attention. A number of factors can influence one's attention levels and these factors can be characteristics of the individual (such as arousal) or the model (such as attractiveness).
- 2) Retention: In order to learn, one must be able to retain and remember what one observed.
- 3) Reproduction: One will not reproduce behaviour if it is not physically possible for one to do so. Whether one attempts to reproduce the behaviour will be based on

one's level of self efficacy, which refers to their belief that the chosen goal is possible for them to achieve.

- 4) Motivation: One will not replicate modelled behaviour, unless one is motivated to, which is largely based on rewards and punishments associated with behaviour.

Modelling in society, be it within the media, family or peers, conveys messages about food, body and weight. As a result of such modelling, one learns that particular foods or weight or body shape are “good”, “bad”, “normal” or “abnormal”. Upon developing these learnt attitudes and beliefs towards food and weight, an individual may adjust their behaviour in accordance to what is perceived as “good” or “bad”. For example, an individual may diet as they believe their body shape or weight is “bad” or “abnormal”, or an individual may restrict food consumption under the belief that a group of foods are “bad”. Such beliefs, and associated behaviours, may be precursors to the development of anorexia nervosa.

Due to the pervasiveness of the media and its extensive portrayal of the thin ideal, the media has been of particular focus in the exploration of the social learning of attitudes, beliefs and behaviours associated with eating disorders. However, family and peers also contain “models” from which social learning can take place. An exploration of the four steps in social learning illustrates more clearly society's role in the development of anorexia nervosa.

Attention

In order for one to learn, one must pay attention. In relation to anorexia nervosa there are two factors that one must pay attention to in the social learning process, in order to increase the risk of eating disorder symptomatology: the thin ideal (the “model”) and the means to achieve the ideal (exercise, diet, pills, cosmetic surgery). McCarthy (1990) noted that all cultures that have eating disorders, have the thin ideal, and those cultures that do not have the thin ideal, do not have eating disorders. The thin ideal shapes one's attitude to the body, while the means to achieve the ideal, shape behaviour.

Garner, Garfinkel, Schwartz and Thompson (1980) examined the shape and size of models between the years 1959-1979, and observed a decrease in the weight of models. This research was extended by Wiseman, Gray, Mosimann, and Ahrens (1992),

who noted that the trend of decreasing size of models continued for the years 1979-1989. A more recent study by Sypeck, Gray and Ahrens (2004) observed a similar trend, noting a significant decrease in model size between 1959 and 1999, in particular in the 1980s and 1990s. What is becoming the norm size in the media is underweight, unrealistic and unhealthy (Cusumano & Thompson, 1997; Hesse-Biber, 1996). Such high prevalence of low weight models, by saturation, could increase the likelihood that one would attend to the thin ideal.

However, not all believe that the high prevalence of the thin ideal in the media leads to individuals attending to the ideal, in fact Gustafson, Thomsen and Popovich (1999), proposed the opposite occurs. That is, the saturation of the thin ideal in the media creates the situation where individuals become so accustomed to seeing the thin ideal that they do not attend to it. In their research Gustafson et al. (1999) explored female college students' perceptions of magazine advertisements, in particular the stereotypical portrayal of beauty and success in women. Findings suggest that women are accustomed to seeing ultra-thin fashion models, and they do not readily perceive the danger in this stereotypical portrayal of beauty and success. Contention over the impact of the high prevalence of the thin ideal in the media is further fuelled by research conducted by Tiggemann and Rueuetel (2001), whereby two groups from two different countries (Estonia and Australia) with varying levels of media exposure, were compared on body dissatisfaction, dieting, disordered eating, and leisure pursuits. No significant differences were observed between the two groups on the measure assessing body dissatisfaction, dieting, disordered eating and leisure pursuits, despite significant differences in media exposure.

Content analysis of media conveys the pervasiveness of messages regarding the means of achieving the thin ideal. Anderson and DiDomenico (1992) examined ten popular magazines commonly read by men and women between the ages of 18-24. They observed that women's magazines contained 10.5 times as many advertisements promoting weight loss than men's magazines. Interestingly this is the same proportion for the incidence of anorexia nervosa found between men and women.

Toro, Cervera and Perez (1988) also examined the content of women's magazines, focusing on advertisements within these magazines. They observed that

22.5% of advertisements directly or indirectly encouraged weight loss, often for aesthetic reasons rather than health reasons.

As noted previously, characteristics of the individual can play a role in the level of attention. Level of arousal is believed to play a role, whereby one is less likely to pay attention if arousal level is too high or too low. However, the pervasiveness of messages in the media leads to the increased chance of catching an individual at optimal arousal level.

Age is another characteristic of the individual that can affect one's attention level to the thin ideal and the means of achieving the thin ideal. The exact effect of age on the attention process is still being examined in the research, with researchers attempting to identify at what age individuals attend to the thin ideal and means of achieving the ideal. Currently, it is believed that adolescents are particularly vulnerable to thin-promoting messages, because they are at a time in their development whereby they are seeking outside information to assist in the formation of their identity (Erikson, 1968; Smolak, 2004).

Studies of the impact of the media on eating disorder symptomatology and body shape stereotyping, for varying age groups, provides some insight into varying attention levels across the age spans, based on the premise that if one is not attending to the media its impact will be low. A number of studies have provided support for the belief that adolescents are more likely to attend to, and be vulnerable to, thin ideal media messages, suggesting that television viewing may be a predictor of eating disorder symptomatology particularly in adolescence (Harrison, 2000a; Smith, 1985).

While, Harrison's (2000b) study on television viewing, fat stereotyping and eating disorder symptomatology in children (average age 7.45 years) indicates that children may be paying more attention to the body shape messages than first thought. Harrison (2000b) observed television viewing predicted increased fat stereotyping in young boys, and increased eating disorder symptomatology in both genders.

Self esteem is another major factor of the individual affecting one's attention level. Studies have indicated that individuals low in self esteem are more likely to attend to external sources for validation, as indicated by increased media consumption (Gross,

2003), and are more vulnerable to thin ideal messages, as indicated by increased symptomatology (Grace, 2002).

In defence of the media, some have proposed that individuals already on the path towards an anorexia nervosa seek out media that supports their goal (Stice, Spangler, & Agras, 2001). Thomsen, McCoy, Gustafson & Williams (2002) observed that the reading frequency of beauty and fashion magazines was strongly predicted by a woman's desire for self-improvement. Furthermore to the media's defence, are the observations that individuals with eating disorders spend more time consuming media (Verri, Verticale, Vallero, Bellone, & Nespoli, 1997), tend to prefer thinner models (Verri et al., 1997), and are more likely to be influenced by the media (Smith, 1985; Waller, Hamilton, & Shaw, 1992). Vaughan and Fouts (2003) explored the type of media consumed by those with eating disorder symptomatology, observing that individuals with increased eating disorder symptomatology had increased consumption of fashion magazines and decreased consumption of television. These observations may reflect an attempt by individuals already beginning to engage in eating disorder behaviour to gather more information regarding how to achieve weight loss (Harrison & Cantor, 1997). However, the studies noted are comparative in nature (not longitudinal or cross-sectional) hence the observed differences may have existed prior to the development of symptomatology, and led to the development of symptoms.

Characteristics of the "model" also play a role in level of attention. Individuals are more likely to pay attention to people they look up to (i.e. role models), or people with whom they identify (Harrison, 2000b; Lockwood, & Kunda, 1997). The majority of role models in today's media are unrealistically thin; therefore it is highly likely an individual will be paying attention to a thin role model.

The perceived attractiveness of the "model" is also believed to play a role in attention level, whereby if one perceives the "model" as attractive one is more likely to pay attention (Harrison, 2000b). This is reflected in Harrison's (1997) study of college women, whereby it was observed that interpersonal attraction to thin media personalities predicted eating disorder symptomatology. In a later study, Harrison (2000b) explored the role of interpersonal attraction to television characters and eating disorder

symptomatology in a younger sample of 1st, 3rd and 5th grade boys and girls, with mixed results. It was observed that girls who were attracted to average weight characters in the media reported the healthiest body size choices, and believed thinness was unimportant. While interpersonal attraction to thin characters was not a consistent predictor of thin favouring cognitions or eating disorder symptomatology. The inconsistent findings between the two population samples in Harrison's studies, could suggest an interactive effect between age and interpersonal attraction on eating disorder symptomatology.

Peers can also act as a "model" from which an individual can learn (Levine, Smolak & Hayden, 1994). Although research into the role of attention to peers and eating disorders is scarce, it has been observed that girls from peer groups highly focused on body and diet are more at risk of developing an eating disorder, than those belonging to peer groups that are not overly focused on body and diet (Paxton, 1996; Paxton, Schutz, Wertheim, & Muir, 1999).

In summary, one's attention level to the thin ideal and means of achieving the thin ideal is mediated by exposure to the media, characteristics of the individual (age, self esteem and concern over body/weight), and characteristics of the media "model".

Retention

In order for one to learn attitudes and behaviours associated with eating disorder symptomatology, one must retain information regarding the thin ideal and means of achieving the ideal. The pervasiveness of the media increases the chances of retention, as one is constantly being exposed to the thin ideal and means of achieving it. When one has retained the information regarding the thin ideal, attitudes and behaviour can become automatic. This process is known as internalization (Vygotsky, 1978). Some studies, have indicated a direct relationship between internalization of the thin ideal and poor body image, eating dysfunction, poor self esteem (Cusumano & Thomson, 1997) and body focused anxiety (Halliwell & Dittmar, 2004). While other studies proposed that internalization of the thin ideal acts as a mediator between media exposure and body dissatisfaction, drive for thinness and eating dysfunction (Gross, 2003; Stice, Schupack-Neuberg, Shaw, & Stein, 1994; Thompson & Heinberg, 1999). Yet internalization of the thin ideal not only has been observed to mediate in particular the impact of the media, but

also the influence of peers and family, on body dissatisfaction and disordered eating (Keery, 2003).

However, not all studies observed a direct or mediator effect of internalization, Stice et al. (2001) in their study of the impact of media exposure on body dissatisfaction and eating disorder symptomatology, did not observe a direct or mediator effect of internalization. Stice et al. (2001) attributed their findings to an absence of a main effect between media exposure, and body dissatisfaction and eating disorder symptomatology. The absence of a main effect was attributed to the age of participants (average age 14 years), and the possibility that they had already internalized the thin ideal.

In a study by Tiggemann (2003) it was observed that different types of media were associated with different levels of internalization. In particular, magazine reading was associated with higher levels of internalization than television viewing. Vaughan and Fouts (2003), also observed the varying impact of different media, noting that fashion magazine reading, but not television viewing was associated with increased eating disorder symptomatology. While in 2003, Keery noted that internalization was influenced by socio-cultural factors and self esteem. These studies indicate that one's capacity to internalize observed messages and behaviour, as with attention, is affected by a number of factors.

Reproduction

Reproduction refers to one's perceived and actual ability to replicate the model. As the thin ideal is so pervasive in the media, it is perceived as the norm and hence perceived as easy to achieve. However, reproduction of the body size that appears in the media is difficult, especially when unhealthy and dangerous means are used by the model.

The perceived ease of achieving the thin ideal is further established by the billion dollar industries of weight-loss, beauty and cosmetics. These industries thrive on individuals feeling dissatisfied with themselves, wanting the ideal and believing the ideal is possible. This is mainly established through media advertisements for weight loss products, beauty products, diets and cosmetic surgery, which use techniques (such as before and after shots, and celebrity endorsements) to suggest to the consumer that they to need to and can achieve the ideal. As these criteria are established, the individual is

more likely to part with money for goods and services that bring them closer to the ideal. As a result in the US 30 billion dollars are spent each year on weight loss efforts and in 1996 1.9 million people, mainly women, underwent plastic surgery (Lindeman, 1999). Indicating not only that a lot of people are dissatisfied with their weight, but also they are willing to part with significant amounts of money in pursuit of the ideal.

The perceived ease of replicability of the thin ideal is further assisted by the fact that weight loss is measurable, which allows the individual to set small observable and achievable goals. As the individual observes themselves meeting the goals, they gain a sense of achievement which builds their sense of self efficacy.

Motivation

Individuals will only pursue the thin ideal if it seems worthwhile. Society has a number of rewards and punishments associated with weight and shape, which are conveyed and maintained through weight related stereotypes and weightism. Being thin is not only considered more aesthetically pleasing than being fat, it is also generally associated with a number of positive attributes. Individuals who are thin tend to be perceived as attractive, happy, healthy, in-control, successful and desirable (Smith, 2000, Tiggemann, 2002). On the other hand fat people are perceived as unattractive (Harris, Harris, & Bochner, 1982), aesthetically displeasing (Wooley & Wooley, 1979), morally and emotionally impaired (Keys, 1955) and socially handicapped (Allon, 1982; Crandall & Beirnat, 1990).

Based on these stereotypes held by members of society, individuals who are overweight tend to be victims of weightism, which is a form of discrimination based on one's weight. Overweight people are denigrated by thin people, peers, employers, health care workers, potential romantic partners, their parents, and even by themselves (Allon, 1982; Crandall & Biernat, 1990). An example of weightism in the workplace takes the form of fat people being less likely to be hired (Roe & Eickwort, 1976) or promoted (Larkin & Pines, 1979) even if weight would not interfere with performance, and experiencing other significant discrimination on the job (Rothblum, Brand, Miller, & Oetjen, 1990). The perceived negatives associated with being overweight, including discrimination, are so severe that many American women fear being fat as much as, and possibly more so, than they fear death (Maslin, 1991).

What is further concerning is the early age in which it is believed that weight based stereotypes develop. Felker (1972) examined the tendency to stereotype the obese in 1st, 3rd and 5th grade children, and observed that even at a young age both males and females assigned negative descriptors to overweight people. These findings were later supported by Harrison's (2000b) study of weight related stereotypes in children between 1st and 3rd grade (average age 7.45 years). Harrison (2000b) also observed that both males and females would negatively stereotype an obese girl, especially with increased television viewing. This stereotyping, established at an early age, is maintained throughout adulthood (Harris & Smith, 1983).

It has been radically suggested that weightism is as pervasive as other forms of discrimination, such as sexism and racism (Crandall, 1994). This is not all that surprising when one considers the social acceptability of negative attitudes towards the obese, compared to negative attitudes towards other minority groups.

Yet it is not only the desirability of thinness and the condemnation of the obese in society that creates motivation to be thin, individual factors can also increase motivation. Body dissatisfaction and low self-esteem in particular are believed to increase an individual's motivation to replicate a model; as if the individual is not happy with themselves they are more likely to be seeking means of self-improvement.

Summary

These four steps combine to lead an individual to learn attitudes and behaviour towards body, weight and food. What is learnt is that the thin ideal is the norm and good, and worth any means possible in its pursuit. What this in turn leads to, is intense body dissatisfaction, an intense drive to achieve the ideal and the use of extreme means to achieve the ideal (dieting, laxatives, over-exercising, and diet pills). All of which are major risk factors for anorexia nervosa. However, the media promotes the thin ideal; it does not necessarily promote anorexia nervosa.

Social Comparison Theory

Social comparison theory (Festinger, 1954) is another theory drawn upon, within the social-cognitive paradigm, in an attempt to explain the aetiology of anorexia nervosa. According to social comparison theory, humans have a drive to assess how they are doing

and when there are no objective standards available, they turn to their social environment and engage in comparison with those within this world. However, according to Festinger's (1954) similarity hypothesis, individuals only engage in comparison with those whom they perceive as being similar to them. When a discrepancy between the self, and the object or person of comparison is observed, the individual adjusts their behaviour to reduce the discrepancy (Corning, Krumm, & Smitham, 2006).

The impact of the comparison varies depending on whether the individual perceives the other to be superior or inferior to them (Major, Testa, & Bylsma, 1991). If an individual compares themselves to someone they perceive as superior on a given dimension (upward comparison), the individual experiences negative affect and a decrease in self-esteem. If an individual compares themselves to someone perceived as inferior on a given dimension (downward comparison), the individual experiences positive affect and increased self esteem (Major et al., 1991).

Of particular focus in relation to social comparison theory and the aetiology of anorexia nervosa is the prevalence of the thin ideal (Corning et al., 2006). The high prevalence of the thin ideal in the media increases the perceived similarity of the ideal to the individual embarking on comparison, as the thin ideal is so predominant it is seen as the norm, rather than an unrealistic and unachievable ideal that is not a relevant comparison. Hence, it is believed that due to the prevalence of the media women are frequently making comparison to a thin ideal.

Numerous studies have observed the negative impact of social comparison on the individual embarking on comparison processes with the thin ideal; with individuals after viewing the thin ideal on television or in magazines reporting increased body dissatisfaction (Hawkins, 2000; Keery, 2003; Paxton, 1996; Stice et al., 2001; Tiggemann & McGill, 2004; Tiggemann & Slater, 2004; Trampe, Stapel, & Siero, 2007), increased body distortion (Hamilton & Waller, 1993; Waller et al., 1992), lowered mood (Cattarin, Thompson, Thomas, & Williams, 2000; Pinhas, Toner, Ali, Garfinkel, & Stuckless, 1999; Stice & Shaw, 1994; Wegner, Hartman, & Geist, 2000), and lowered self esteem (Tiggemann, 2001; Utter, Neumark-Sztainer, Wall, & Story, 2003). All of which are associated with increased risk of developing anorexia nervosa.

It is believed that increased comparisons are associated with increased eating disorder symptomatology (Corning et al., 2006). As with the process of social learning, there are also a number of factors that combine to increase or decrease the rate of social comparisons an individual engages in, many of which lie within the individual. Being female is one such factor, as women in society face more pressure than men in relation to body weight and shape (Gaskill & Sanders, 2000), it is believed that they are more likely to turn to external sources for a standard, and thereby engage body related comparisons with same sex others (Murray, Touyz & Beumont, 1995).

Age is another factor that is believed to contribute to the level of social comparison. Adolescence is a period of time in which it is believed the individual engages in increased social comparison (Shaw & Waller, 1995). This is due to the adolescents' developmental stage, whereby they experience uncertainty in their sense of self and development of their identity, and turn to external sources for feedback (Erikson, 1968).

Research has demonstrated that a number of characteristics within the individual can increase the likelihood that the individual will engage in social comparison, including; high body dissatisfaction, low self esteem, high social anxiety, high social consciousness, increased sensitivity and reactivity to other people's behaviours (Gibbons & Buunk, 1999; Heinberg & Thompson, 1992; Stice et al., 2001; Striegel-Moore, McAvay, & Rodin, 1986; Trampe et al., 2007) If an individual possesses a number of these characteristics they are more likely to experience uncertainty and turn to those within their social world for reassurance and to measure how they are doing.

Research has also indicated that individual's possessing these characteristics have a broader spectrum of what is considered relevant or similar with which to make comparison. Thereby, the frequency of social comparisons is increased. Trampe et al., (2007) observed that individuals who were dissatisfied with their bodies were more likely to engage in comparison, not only with models but also with inanimate objects (such as vases), than those who are satisfied with their bodies. As a result of these comparisons the body-dissatisfied individuals reported greater disturbance, in the form of increased negative self perceptions, after viewing pictures of thin models and thin vases, than individual's satisfied with their body.

Interestingly those characteristics associated with increased social comparison are also risk factors for the development of anorexia nervosa and are products of upward social comparisons. Hence it appears that a cycle exists, illustrated in figure 1, whereby an individual with low self-esteem and body dissatisfaction, engages in social comparison, which thereby increases their body dissatisfaction and decreases their self-esteem, which increases their likelihood of engaging in further social comparisons.

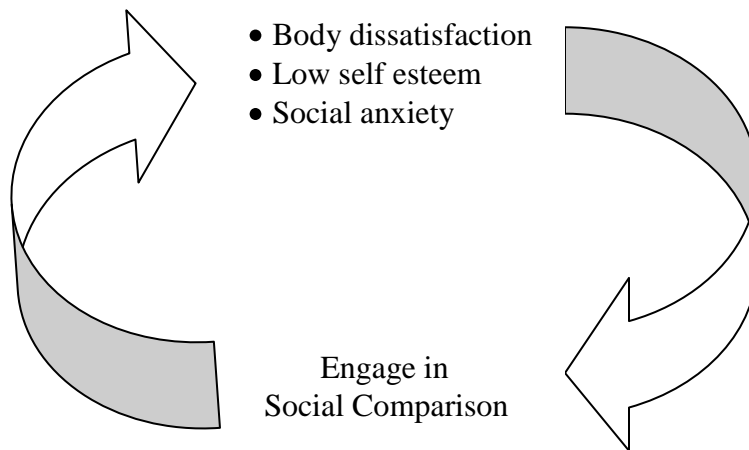


Figure 1: Cycle of Social Comparison

As the individual becomes caught up in the above cycle they are at increased risk of developing anorexia nervosa, as body dissatisfaction, low self-esteem and social comparison are predictors of eating pathology. However, what remains unclear is how one enters this cycle, and how one may get out of the cycle. Being female and entering adolescence increases one's likelihood of entering the cycle, but not all adolescent females enter and stay in the cycle.

Social-Cognitive Processes in the Maintenance of Anorexia Nervosa

The social-cognitive processes of social learning and social comparison not only contribute to the onset of anorexia, but also the maintenance of anorexia nervosa. Upon reflecting on the four processes within social learning it becomes evident how social learning may play a role in the maintenance of anorexia nervosa. The individual on the path towards anorexia nervosa may be more attentive to, and even seek out material that justifies or validates their actions (Comin, Krumm, & Smitham, 2006; Kassow, 2002). As they find the information relevant to their experiences, and their goal of being thin, they

may be more likely to remember the messages. The perceived replicability of the thin ideal, and the individual's sense of self efficacy are likely to increase as the individual is already engaging in eating disorder behaviour, and achieving weight loss goals. In the earlier stages of the disorder, particularly for individual's who were overweight, the extreme food restriction and associated weight loss are rewarded in the form of the compliments and the individual experiences a sense of accomplishment. Thus motivating the individual and propelling them further into the disorder, as food restriction and weight loss becomes further associated with rewards.

What is not clear is how restricting behaviour continues, even upon the individual's weight reaching an unhealthy level, thereby eliciting responses of concern and disgust from others. It is possible that others showing concern is another form of reinforcement. It is also possible that the strength of learnt association between weight loss and rewards may become so entrenched that, despite not receiving actual reinforcers when the individual's weight reaches an unhealthy level, the individual may continue to hold the belief that they will receive reinforcers if they continue with their behaviour.

Although it is suspected that social comparison continues to play a role, it has not been established how exactly this occurs, and if in maintenance the social comparison process is different. However, research into maintenance of anorexia nervosa is scarce; hence these possibilities have not been researched.

Summary of Social-Cognitive Processes

Social learning theory (Bandura, 1977) is the major guiding theory within the social-cognitive paradigm in the exploration of the aetiology and maintenance of anorexia nervosa. At the heart of the theory in relation to anorexia nervosa is that individuals learn their attitudes towards body and weight from society, in particular the portrayal of the thin ideal, and adjust their behaviour accordingly. However, the process of learning such attitudes and adjusting one's behaviour is not as simple as it may initially appear. Rather, there are four components to social learning, and within each of these four components there are subcomponents of the individual and the world around the individual, that may increase or decrease an individual's risk of developing the disorder. In the early stages of anorexia nervosa, it is likely that the process of social learning continues, and contributes to the individual continuing on their path, as rewards

are increasingly linked to weight loss. However, at a certain point the rewards begin to decrease, yet the behaviour continues.

Social comparison theory (Festinger, 1954) is also drawn upon in the exploration of the aetiology and maintenance of anorexia nervosa. According to social comparison theory individuals turn to others in society to determine normative appearance and behaviours. Again, as with social learning theory, social comparison is not as simple as it first appears, with many factors within and outside an individual determining comparison. Those who are at increased risk of developing anorexia nervosa are those who compare themselves with others and determine their own body is abnormal and adjust their behaviour accordingly. Upon the disorder developing, it is believed the individual continues to engage in social comparison, however, it has not been established exactly how the comparison process takes place in maintenance.

Knowledge and understanding gained from the social-cognitive paradigm provides detailed insights into why predominantly females develop anorexia nervosa (due to the female thin ideal), why there is possibly an increase in diagnosis in recent years (due to increased prevalence of the thin ideal), why the age of onset may be decreasing (due to increase media directed at the younger ages) and how an individual may begin on their path to weight loss. However, both theories struggle to explain why some individuals diet while others go on to develop anorexia nervosa, and why does the anorexia nervosa behaviours continue when elements of these processes are stopped or reversed.

Family Aetiology and Maintenance of Anorexia

The media and peers are not the only aspects of the environment that influence the individual, in fact one of the earliest and arguably the most enduring influence in one's environment is the family unit. Early studies and clinical observations of individuals with anorexia nervosa and their families led to the postulation that family processes contribute to the aetiology of anorexia nervosa, resulting in intense blame and guilt frequently experienced by families of sufferers for years to come. The particular family processes hypothesized to be associated with anorexia nervosa include: modelling of attitudes towards food, weight and achievement, a blurring of roles, and poor communication. Although it has been established that these processes are associated with anorexia

nervosa, whether the association is indicator of causality is yet to be established. In actual fact, in recent years with increasing research there is increased doubt over whether a causal relationship exists between family processes and anorexia nervosa.

Modelling Behaviour

Earlier in this chapter it was noted that through the process of social learning, an individual can learn particular attitudes and behaviours towards food, body and weight. However, general society is not the only source of models from which to learn, in fact the family unit is probably the first and most enduring source of a model from which to learn (Smolak, Levine, & Schermer, 1999). Modelling within the family that is believed to contribute to the aetiology of anorexia nervosa may take a number of different forms, and research has demonstrated that the presence of the following within the family is associated with an increased drive for thinness, body dissatisfaction and eating disorder symptomatology: parental eating disorder, parental control over food, excessive focus on achievement, over-concern with social appearance and attractiveness, preoccupation with weight and shape and encouragement to diet (Benninghoven, Tetsch, Kunzendorf, & Jantschek; 2007; Candy, 2002; Dancyger & Garfinkel, 1995; Davis et al., 2004; Fernandez-Arand et al., 2007; Kalucy et al., 1977; Neumark-Sztainer, Wall, Story & Perry, 2003; Wade et al., 2007; Wertheim et al., 2002; Yager, 1982).

As a result of the family being focused on appearance and achievement, through the process of social learning, an individual may learn the following messages: that appearance (especially one's weight or shape) is highly important, that a particular weight or shape is desirable, and that one is more likely to be accepted if one achieves that ideal. In response to these messages, an individual may feel they need to change their body shape and weight, and thereby make themselves more acceptable to the family and more likely to achieve. Factors noted earlier in this chapter on social learning, of the individual and the model that increases or decreases one's vulnerability, also apply within the family. Thereby, some individuals are more vulnerable than others to these messages and associated behaviour change. However, as with social learning theory noted earlier, while this explanation provides an insight as to why an individual may begin to diet or exercise, there is a lack of clarity as to why some individuals diet and exercise, and others develop anorexia nervosa.

Blurring of Boundaries

The blurring of boundaries, particularly in the mother/daughter dyad, has long been highlighted as a contributor to development of anorexia nervosa in the literature by a number of schools of thought (Hartman, 2002). Blurring of boundaries, also known as enmeshment, refers to extreme proximity and intensity in family interactions, whereby individuals become lost, and identities, thoughts and feelings become shared. Blurring of boundaries is characterized by a lack of role definition (seen particularly in the mother/daughter or parent/child roles), in addition to intrusiveness, interdependence, and a lack of clear sense of self in all parties (Strober & Humphrey, 1987).

Numerous studies have demonstrated that families with a member who has anorexia nervosa tend to have greater boundary dissolution, enmeshment, interdependence, and lower levels of autonomy, than control families (Gilbert, & DeBlassie, 1984; Goldstein, 1981; Rowa, Kerig & Geller, 2001; Strober & Humphrey, 1987; Sugarman, Quinlan, & Devenis, 1982).

The product of such a relationship on the younger party is a lack of autonomy, interdependency, poor development of self and difficulties with individuation (Bruch, 1973; Minuchin, Rosman & Baker, 1978; Strober & Humphrey, 1987). The state of enmeshment becomes particularly problematic as the child enters adolescence, whereby they enter a developmental stage where they seek to explore and develop their own identity separate from their family (Erikson, 1968). However, as the relationship with the mother (or other family member) is enmeshed at many levels, food, body and weight may be the only avenue in which the adolescent can assert autonomy, control, and gain a sense of meeting their developmental needs (Bruch, 1973; Sugarman et al., 1982).

As food, body and weight are the only areas in which the individual feels they can assert their autonomy and sense of self, the individual is at risk of their sense of self becoming completely defined by thoughts, feelings and actions these areas. In fact, as eating disorder thoughts and behaviours intensify, and anorexia nervosa develops, an individual's sense of self becomes their anorexia nervosa (Bruch, 1973; 1978) as they lose sight of other characteristics that define themselves, or activities they used to enjoy. Thus perpetuating the disorder and creating a barrier to recovery, as challenges to

anorexia nervosa are challenges to the sense of self, and letting go of anorexia nervosa involves letting go of a sense of self.

At an external level upon anorexia nervosa developing the family dynamics, that may or may not have contributed to the disorder, may change and in turn play a role in maintaining the disorder (Minuchin et al., 1978). In relation to the previous notation that anorexia nervosa may stem from an attempt to assert power and autonomy in a family where the individual feels they do not have any; upon the disorder developing the dynamic change that may occur within the family may give the individual just what they were seeking, power and control (Minuchin et al., 1978). Power and control tend to be handed over to the sufferer of anorexia nervosa in the form of the concerned family trying to do, or offering to do, what they can to keep the peace or help the individual suffering from anorexia nervosa. These patterns of behaviour, although well intended, maintain the disorder as it provides a source of positive reinforcement, and there is the perception that if one no longer has the disorder interactions will revert back to previous patterns, and the individual will lose that source of control or power within the family.

Family Communication

Another family process commonly associated with families of individuals with anorexia nervosa is poor family communication. This may take a number of forms, including contradictory communication (pseudo-affection and control, help and ignoring), or a lack of communication, particularly around emotions and conflict. Research, using a number of different methodologies, has demonstrated that families of individuals with anorexia nervosa have significantly poorer communication patterns, than families of other eating disorders, other psychiatric disorders and control families (Garfinkel et al., 1983; Goldstein, 1981; Goller, 1995; Humphrey, 1987; Humphrey, 1989; Kog, & Vandereycken, 1985; Lattimore, Wagner, & Gowers, 2000; Moreno, Selby, Aved, & Besse, 2000). In particular, communication patterns tended to be destructive, convey a message of neglect, or are a mixed message conveying both neglect and nurturing (Humphrey, 1989). Interestingly, family member perceptions of family dynamics and communication patterns tend to vary (Emanuelli et al., 2005), with the sufferers report frequently being the most valid self report measure from family members (Waller, Calam, & Slade, 1988).

The impact of these communication patterns is that as there has been a lack of communication or mixed communication about emotions and conflict, the individual struggles to learn how to manage conflict, and identify, communicate, and manage emotions (Bruch, 1973; Humphrey, 1989; Strober, & Humphrey, 1987; Minuchin, Rosman, & Baker, 1978). In response to their lack of capacity to identify and manage emotions and conflict, the individual turns inward, and towards their body and food as a means of communicating distress, and attracting the attention of those around them. This is a similar process to that observed in relation to the blurring of boundaries, however, in the circumstance of poor family communication, it is likely that there are other avenues, such as behaviour, for the individual to use to communicate distress. Hence, what is unclear within this explanation is, why the individual turns to food and body, as opposed to other forms of behaviour?

However, the observed association between anorexia nervosa and the processes of blurred boundaries and poor communication may not be an indicator of causality. Longitudinal studies provide insight into presence of causality, yet only four longitudinal studies exist exploring family processes, including blurring roles and communication, and anorexia nervosa (Attie & Brooks-Gunn, 1989; Button, Sonuga-Barke, Davies, & Thompson, 1996; Calam & Waller, 1998; Graber, Brooks-Gunn, Paikoff, & Warren, 1994). Of these four longitudinal studies, only Calam and Waller (1998), observed a moderate correlation ($r = .21-.36$) between some components of the Family Assessment Device Scales (Communication, Roles, General Function) and eating disorder symptomology, seven years later. However, initial eating disturbances were not controlled for in their study, therefore may have existed prior, and may be due to other processes. The other three studies did not observe a significant correlation between family processes and eating disorder symptoms.

Meanwhile a retrospective study conducted by Webster and Palmer (2000), compared family histories of individuals with anorexia nervosa, bulimia nervosa, mixed anorexia and bulimia, with women with major depression and nonmorbid controls. No significant difference was observed between patients with anorexia and the nonmorbid control group on any of the family variable studied. Hence, doubt is cast over the perceived contribution of family processes to the aetiology of anorexia nervosa, as both

the longitudinal studies and retrospective studies struggled to demonstrate a correlation between dysfunctional family processes and eating disorder symptomatology.

Summary of the Family Aetiology and Maintenance Processes

In summary, a number of family processes have been identified as being associated with anorexia nervosa, and speculated as to their role in the aetiology and maintenance of the disorder. Many individuals with anorexia nervosa come from families where there is a family focus on food, appearance and achievement. It is believed that presence of such a focus contributes to the aetiology of anorexia nervosa as it is a form of modelling. Other family dynamics, such as blurring of the boundaries or poor communication, may play a role in the aetiology of anorexia nervosa by pushing the individual to turn to food, body and weight as a means of asserting autonomy, gaining control or power, or communicating distress, as there appears to be no other means. Upon developing anorexia nervosa, the disorder may become what the individual was seeking, a sense of self or a means of gaining power or control over the family, and hence play a role in maintaining the disorder. Knowledge and insights gained from the family paradigm assist in the understanding of why anorexia nervosa is more common in some families, and why onset tends to be around adolescence. However, the role of family processes in the aetiology of anorexia nervosa may not be as clear as it first appears, as longitudinal research has not provided strong evidence for causality, and a number of individuals with anorexia nervosa come from families that do not possess these processes or dynamics.

Existential Aetiology and Maintenance of Anorexia Nervosa

What the previous paradigms have not focused upon is that anorexia nervosa is a life or death disorder. Thereby an individual's perception of life and death may play a role in the development on the disorder. Existential psychology is a very broad psychological approach that has its roots, like much of general psychology, in philosophy. A large component of existential psychology is the consideration of life and death, and how one's awareness of life and death affects how one lives. Life-meaning has recently been explored in relation to anorexia nervosa, and both Pegrum (2005) and Fox and Leung (2004) have proposed different yet similar means in which life-meaning may play a role in the aetiology of anorexia nervosa. The former suggests anorexia is a

product of an active, yet misguided, attempt to developing life-meaning and thereby cope with a lack of life-meaning they are experiencing. While the latter suggests that anorexia nervosa is an avoidant means of coping with existential distress. Upon anorexia nervosa developing, the disorder become's an individual's life-meaning and by so doing, the disorder is maintained. However, the connection between existential psychology and anorexia nervosa is currently only tentative, as the potential connection has only recently been ignited, and the theories are yet to be fully developed, and explored in research.

Life-Meaning and Anorexia Nervosa

Life-meaning refers to what one lives for, and what gives order and purpose to one's world and one's existence (Frankl, 1967). One's life-meaning provides a framework for interpretation of the world and development of a plan of action (Frankl, 1985).

Reker and Wong (1988) proposed that life-meaning consists of three interrelated components: cognitive, motivational and affective. The cognitive component refers to the framework of one's beliefs system and one's values, which shapes how one interprets the world. The motivational component is the drive to develop and pursue goals that are consistent with one's values, needs, desires, and beliefs. The motivational component may be hierarchical with shorter term or daily goals at the bottom, and higher order or longer term goals at the top. The final component is the affective component, which refers to feelings that accompany the belief that life is worth living, and the achievement of goals set that are consistent with one's life-meaning, such as feelings of fulfilment, satisfaction and happiness.

Originally Frankl (1985) proposed that there are three main means by which people derive meaning from their lives: by what one gives to the world in terms of one's creativity, by what one takes from the world in terms of one's experience, and by the attitudes one takes toward the world. This includes the attitudes one takes towards suffering.

In more recent years, expanding on Frankl's (1985) ideas, Ebersole and DePaola (1987) have suggested there are eight categories of sources of life-meaning;

Relationships: meaning obtained through connecting with others (such as family, friends and lovers).

Service: meaning derived from helping or giving to others.

Belief: meaning derived from living according to one's beliefs (religious, political or social).

Obtaining: meaning derived from materialistic preferences and possessions.

Growth: meaning gained through self improvement and understanding.

Health: meaning obtained from maintaining physical or mental health.

Life work: meaning derived from work.

Pleasure: meaning received from the general experience of pleasure.

Existential psychologists believe that humans are unique in their capacity to develop life-meaning, as unlike any other animal, humans are able to reflect on life and the inevitability of their own death (May, 1983). It is believed that this awareness propels a human's basic drive for life-meaning, as humans seek to make the most of their lifespan (May, 1983).

For a number of years existential psychologists have proposed the importance of life-meaning in relation to physical and psychological wellbeing. Research has demonstrated that individuals high in life-meaning tend to be physically and psychologically healthier than individuals struggling to find life-meaning, as indicated by reduced physical ailments and psychological distress, and the presence of positive emotions (Reker, Peacock, & Wong, 1987; Wong & Reker, 1993). Research also indicates that individuals high in life-meaning have more effective coping mechanisms than individuals struggling with developing life-meaning (Halama, 2000).

On the other hand, a lack of life-meaning is known as an existential vacuum, and is associated with difficulties, both with life direction, and also from having an inconsistent framework with which to interpret the world around them. This in turn is associated with feelings of confusion, boredom, emptiness, frustration, apathy and worthlessness. Just as the presence of life-meaning is associated with physical and psychological health, a lack of life-meaning is associated with mental illness and psychological distress. In fact, research has demonstrated that a lack of life-meaning is associated with depression (Klinger, 1977; Reker, 1997) and substance abuse (Man, Stuchlikova & Klinger, 1998).

Not only is depression and substance abuse associated with a lack of life-meaning, they are also conditions that are commonly observed as being co-morbid with anorexia nervosa. Which leads to the question: is there an association between life-meaning and anorexia nervosa?

There are two main studies in which this question was explored. Pegrum (2005) observed that individuals suffering from anorexia nervosa had a significantly lower sense of life-meaning than those in the control group. While Fox and Leung (2004) conducted a correlational study, and observed that, with increasing existential distress (a product of a lack of life-meaning) there is increased eating disorder symptomatology. Thus, there are two main theories explaining the role of life-meaning in the aetiology of anorexia nervosa. The first of which proposes that anorexia develops as a misguided attempt to develop life-meaning (Pegrum, 2005).

For women, society tends to link being thin with being successful and achieving what one wants. Table 2 makes use of Ebersole and DePaola's (1987) eight areas where meaning can be developed in life, and illustrates how society and the media often convey messages to women that being thin and beautiful may increase one's likelihood of success in these areas. For an individual lacking life-meaning, these messages that are prevalent in society, associating being thin and attractive to potential sources of life-meaning may seem to provide an easy answer to the distress they are experiencing as a result of their lack of life-meaning. Hence, an individual may perceive that they are addressing the problem of a lack of life-meaning, by increasing their probability of establishing life-meaning by reducing weight and focusing on appearance. Under this stream of thought, one is able to identify how and why an intense drive for thinness is developed, and thereby one's risk of anorexia nervosa is increased, yet what is not explained is how this drive for thinness moves from simple dieting to anorexia nervosa.

Table 2: Thinness and Beauty as Sources of Life-meaning

Area of life-meaning	Linking to Thin and Beauty
Relationships	Thin and beautiful people are often portrayed as more popular and more likely to be in a meaningful relationship.
Obtaining	Thin and beautiful models in advertising, are often paired with materialistic possessions.
Growth	Weight loss is often perceived in society as a means of self improvement, with many television shows and magazines displaying the vast physical and psychological improvement of those who have lost weight.
Health	Weight loss and being thin is often perceived in society as a means of maintaining or improving one's health, with many sources documenting the dangers of obesity.
Pleasure	Thin and beautiful people are often portrayed as having more pleasurable life experiences.
Beliefs	If one lives one's life according to the cult of beauty, one's belief system may largely revolve around weight and appearance.
Life work	Thin and beautiful people are often perceived as being successful in their area of chosen work.
Service	Obesity is often associated with selfishness, in being thin one may be perceived as more likely to give to others.

The second theory is similar in nature, and proposes that anorexia nervosa may be a misguided coping strategy used to address existential distress (Fox & Leung, 2004). In the former theory anorexia nervosa is an active, albeit misguided and unhealthy, attempt to cope with distress, while the second theory reflects avoidant coping in the face of distress.

Vitousek and Manke (1994) propose that individuals who go on to develop anorexia nervosa possess a number of vulnerability factors that increase their risk of not only experiencing an existential vacuum and the associated distress, but also increase their vulnerability to anorexia nervosa. These factors include: personality, poor coping mechanisms and a lack of resources to manage life events. These vulnerable individuals then experience a time of difficulty (such as adolescence), where existential issues come to the forefront, bringing up an existential vacuum and distress. In this state the individual feels as if their life is out of control and chaotic. The process of engaging in weight loss and focusing on food and body, enables the individual not only to gain a sense of control when they feel out of control (Slade, 1982), but also distracts the individual from the

negative emotions and thoughts associated with an existential vacuum (Fox & Leung, 2004; Vitousek & Manke, 1994).

Both these explanations have only recently been established, and have not yet been explored and tested in great detail. Future research needs to further explore these explanations to confirm and clarify the processes involved in the association between anorexia nervosa and life-meaning.

As the disorder develops, an individual's sense of self and life-meaning becomes completely caught up in the anorexia nervosa, and by reflecting upon the different components (Reker & Wong, 1988) of life-meaning it becomes evident how anorexia nervosa can give the illusion of having life-meaning. As noted previously, as an individual progresses into the disorder, their cognitive resources reduce to the point where their thoughts largely revolve around food, body and weight (Keys et al., 1950), and this becomes the cognitive component of their life-meaning. Rules around what one "should" or "ought" to eat and do, and what is "good" and "bad" become the individual's framework and beliefs for interpreting the world. From this framework the individual is able to establish goals to strive for, that largely revolve around restricting food, engaging in activity and reducing one's body weight. Thereby, anorexia nervosa behaviour becomes the motivational component of the individual's life-meaning. As the individual is setting goals that are consistent with their framework, and achieving them, the emotional component of life-meaning is thus met.

Since at one level anorexia nervosa gives the individual a sense of life-meaning, and recovery from anorexia nervosa would involve the individual relinquishing their only source of meaning and purpose in life, the individual becomes trapped in the disorder.

Summary of Existential Processes in the Aetiology and Maintenance of Anorexia

In summary, support exists for the role of existential factors in the aetiology of anorexia nervosa, in the form of research indicating a relationship between a lack of life-meaning and disorders commonly associated with anorexia nervosa, as well as research demonstrating an association between a lack of life-meaning and anorexia nervosa symptoms. These findings can be combined with the fact that society links appearance and weight to life-meaning, and weight loss provides an individual with a sense of control and a possible avenue of coping. Thereby, anorexia nervosa may be a product of

trying to gain life-meaning under the misconception that weight loss will lead to life-meaning (Pegrum, 2005), or anorexia nervosa is a product of trying to regain control and cope in an out-of-control world of an existential vacuum (Fox & Leung, 2004). Upon the disorder developing, anorexia nervosa becomes an individual's source of life-meaning, and thereby plays a role in maintaining the disorder. Knowledge and insights gained from the existential paradigm assist in understanding why the disorder predominantly develops in females in cultures where there is a thin ideal (thinness is portrayed as a path to life-meaning for women), as well as why the age of onset is typically adolescence (adolescence is a time of existential confusion) and why someone with anorexia nervosa clings to the disorder firmly (anorexia nervosa has become their life-meaning). However, the exploration of existential factors in the aetiology and maintenance of anorexia nervosa is still in its early stages, and the lack of concrete detail in explanations of the observed relationship reflects this.

The Problem and the Phenomena: Aetiology and Maintenance of Anorexia Nervosa

Anorexia nervosa is a very serious and highly complex disorder. Pieces of knowledge and insight from all four of the paradigms noted in this chapter have contributed significantly to the understanding of anorexia nervosa. From the biological perspective understanding of physiological processes (such as genetics, physiological imbalances and starvation syndrome) assists in understanding why some individual's may be more vulnerable to developing anorexia nervosa, how the disorder may be triggered and how an individual may get trapped in the disorder. Yet a number of questions remain unanswered, including what exactly is inherited, and are the physiological irregularities an antecedent or consequence of anorexia nervosa. From the social-cognitive paradigm understanding is gained about how an individual may come to develop attitudes beliefs and behaviour in relation to food, body, weight and appearance. Yet many of the people who are exposed to the media, and engage in the processes of social learning and social comparison, do not develop anorexia nervosa, and many continue with anorexia nervosa behaviours despite a significant reduction in reinforcers. From the family paradigm understanding is gained about how beliefs, attitudes and behaviours are learnt from the family contribute to the onset and maintenance of anorexia nervosa, as well as family dynamics. However, a number of individuals develop anorexia nervosa without these

processes being present. From the existential paradigm understanding is gained about how existential concerns, particularly around life-meaning and existential anxiety, may contribute to anorexia nervosa. However, research from the existential paradigm in relation to anorexia nervosa is still in its infancy, and strength of association is yet to be confirmed.

As valuable as the knowledge from the different paradigms may be, what is evident throughout this chapter, in the questions that remain unanswered and the lack of connection both within and between paradigms, is that the knowledge is fragmented. As a result of this fragmentation there is a reduced understanding of the anorexia nervosa as a whole, and of the subjective experience of the onset and maintenance of the disorder.

As noted in chapter 1, fragmentation of understanding can have a significant impact, particularly at the level of implementation of knowledge. Fragmentation of understanding of a mental illness potentially reduces the capacity to implement efficacious prevention programs. If a prevention program is implemented based on one piece or a small number of pieces of knowledge (for example, a prevention program aimed at addressing social learning and comparison), it is likely that the program will not address many other processes contributing to the aetiology of anorexia nervosa (for example genetic, family processes and existential concerns). As a result individuals may continue to develop anorexia nervosa, and the prevention program may be perceived as not being efficacious.

Difficulty implementing a prevention and treatment program is particularly concerning when one considers the significant impact anorexia nervosa has, not only on the individual sufferer, but those surrounding the individual (Duker & Slade, 2003). Hence, it is important that an understanding of the complex subjective experience of anorexia nervosa is gained, and thereby enabling the development and implementation efficacious prevention and treatment programs for this serious disorder. Yet how can the pieces of knowledge be gathered and tied together to move the field closer towards answering the question, what is the subjective experience of anorexia nervosa?

Chapter 3: Recovery Pieces of Anorexia Nervosa

The difficulties and issues encountered by individuals in onset and maintenance of anorexia nervosa often continue, and need to be addressed in the process of recovery. However, the process of recovery is highly complex, and there are a variety of different definitions of recovery. This chapter begins with a brief exploration of what is recovery, before moving into exploration of the knowledge about processes believed to be involved in recovery from anorexia nervosa, and associated treatments from the four different paradigms (biological, social-cognitive, family, and existential). From the biological approach the issue of physiological dysregulation, and impact of starvation is addressed through weight restoration and medication. While the social-cognitive approach attempts to address the negative and unhelpful thoughts, feelings and behaviours created from social learning and social comparison, through cognitive behaviour therapy and media literacy programs. Family therapy can take a number of forms, and generally aims to address processes contributing to onset and maintenance of anorexia nervosa, and support the family to unite in the fight against anorexia nervosa. Treatment from the existential paradigm aims at addressing difficulties with life-meaning, in the form of assisting the individual discover life-meaning, or assisting the individual in managing distress created from a lack of life-meaning. A number of forms of treatment exist that directly or indirectly assist an individual in life-meaning.

What is evident is throughout this chapter is that when knowledge from the different paradigms and associated treatment are considered and used in isolation, they struggle to capture and treat the subjective experience of anorexia nervosa. Hence, the issue of fragmentation of knowledge and understanding, and the difficulty this creates at the level of implementation of treatment raised in previous chapters, continues into recovery from anorexia nervosa. However, in the realm of recovery from anorexia nervosa there is increased acknowledgement of the need to tie together knowledge and understanding not only from different paradigms, but also from different disciplines, as indicated by the frequent use of multidisciplinary teams in the treatment of anorexia nervosa.

The Notion of Recovery

Before exploring the literature on treatment and recovery it is important to note that the complexity of the subjective experience of anorexia nervosa is further indicated

by the fact there are a number of different definitions and elements to recovery (Couturier & Lock, 2006). These disparities in definition of recovery create confusion in the literature, as with variation in recovery definition there is variation in outcome findings (Harding, 2003).

A number of studies have used weight restoration or weight restoration combined with resumption of menstruation as a measure of recovery; such studies have reported recovery rates of approximately 50% and 76% respectively (Hardin, 2003; Steinhausen, Rauss, & Seidel, 1991; Strober, Freeman, & Morrell, 1997). However, Windauer, Lennerts, Talbot, Touyz, and Beumont (1993) measured the eating patterns of weight recovered anorexics, and noted that despite being weight restored 75% of participants were still struggling significantly in relation to adequate nutritional intake. Hence, weight restoration is not necessarily an indicator of recovery at the behavioural level in relation to food.

Yet behaviour as well as weight restoration may still not be enough to capture recovery. Cognitive criteria of body image disturbance and fear of weight gain are other elements of recovery that are frequently omitted in recovery definitions (Bachner-Melman, Zohar, & Ebstein, 2006). Bachner-Melman, Zohar, and Ebstein, (2006) compared 42 behaviourally but not cognitively recovered women, with 32 behaviourally and cognitively recovered women, with 253 controls. On all measures women who were both cognitively and behaviourally recovered were indistinguishable from controls, while scores for individuals who were in the behaviourally but not cognitively recovered group were significantly more 'anorexic like'. Hence, cognitive factors, as well as physical and behavioural factors are important to include in recovery definitions.

Deter, & Herzog (1994) further explored the impact of differing definition of recovery by comparing recovery as defined by physical measures alone, with recovery physical measures and psychological functioning and co-morbidity, with 84 anorexia nervosa patients over a 12 year time frame. When using physical measures alone recovery rates were 54%, however this dropped to 41% when psychological measures were also used. Eckert, Halmi, Marchi, Grove and Crosby (1995) also used an extensive definition of recovery in their 10 year follow-up study of anorexic patients. This definition included weight, eating bahviours, menstrual function, cognitions, social,

psychological, sexual and vocational adjustment. Recovery rates with such an extensive definition further dropped to 23.7%.

In the literature it also been noted that there is an absence of clients views of recovery (Jarman & Walsh, 1999). Garrett (1998) attempted to address this gap in their phenomenological and narrative based study of recovery. Garrett noted that participants were reluctant to use the term recovery as absolute ending, rather they say recovery as a transformational process, within which changes occur at multiple levels.

Due to the complexity of the definition of recovery, and wanting to keep the research based closely to participant experience, the notion of recovery in this thesis is of a transformational process (Garrett, 1998). Within such a process the individual may have made changes in one (such as, weight restoration) or many areas (such as, weight restoration, psychological and cognitive functioning). Knowledge and understanding from the four paradigms of biological, social-cognitive, family and existential, can assist in the identification of how changes in the different areas may occur.

Biological Pieces of Recovery

In chapter 2 it was raised that physiological changes associated with starvation significantly reduce an individual's resources to identify that a problem exists, engage in treatment, and recover from anorexia nervosa. There are two main forms of treatment from the biological approach that aim to address such physiological changes that may maintain the disorder; weight restoration and medication. However, each of these forms of treatment are associated with difficulties, and in and of themselves they are not forms of treatment associated with long-lasting change.

Restoration of Weight

Due to the significant role of starvation in the maintenance of anorexia nervosa, as well as the risks associated with low body weight, weight restoration is often the focus of anorexia nervosa treatment. The Keys et al. (1950) Minnesota Starvation Experiment, noted in chapter 2, not only provided significant information on the impact of starvation, it also provided insight into the process of weight restoration. At the end of the period of semi-starvation participants entered a five month weight restoration period, consisting of

12 week restricted rehabilitation and eight week unrestricted rehabilitation. A subgroup of participants continued to be monitored for another four months. At the end of the five months the majority of participants were either physically and psychologically back to baseline levels, or very close to the baseline levels recorded at the beginning of the experiment. The symptoms of starvation had all abated, including: poor cognitive functioning, preoccupation with food and weight, mood disturbances, and low energy levels.

Further research studies have since supported Keys et al.'s (1950) observations, indicating that weight restoration is associated with: a return to regular physiological functioning including endocrine function, reduction in depression and anxiety symptoms, return of cognitive functioning, and reduced obsessional thinking around food and body (Inanuma, 2002; Konrad, Carels, & Garner, 2007; Meehan, Loeb, Roberto, & Attia, 2006; Pollice, Kaye, Greeno & Weltzin, 1997). Due to the impairments associated with starvation and the improvement in functioning noted with weight gain, it has been suggested that initial treatment should focus on prompt weight restoration to enable the individual to thoroughly benefit from the treatment provided (Brown, 1993; Mehler & Crews, 2001).

However, the process of weight restoration is not simple and is associated with risks, the main risk being of refeeding syndrome (RFS). Refeeding syndrome is a complex body response that can occur with initiation of nutrition after a period of starvation, whereby the individual's levels of electrolytes, vitamins and sodium retention alter, jeopardizing their health (Lauts, 2005). If refeeding syndrome is not treated the individual can die. Due to the risk associated with rate of weight gain, guidelines have been implemented recommending a regime of specific caloric intake to increase weight at a rate associated with a reduced risk of refeeding syndrome (National Institute for Clinical Excellence, 2004). Although there are guidelines as to caloric intake, the practicalities of the caloric intake have not been established, as no one particular nutritional regime has been demonstrated as superior to another.

Another practical issue for weight restoration is the treatment setting in which it should occur. The inpatient setting is recommended as the setting for weight restoration for individuals who are medically compromised, and research has demonstrated reduced

relapse rates for patients who remained in hospital until the target weight was achieved (Baran, Weltzin, & Kaye, 1995). However, in a number of health care systems there is a high demand on beds, and high cost associated with inpatient care. Hence, inpatient care may not be feasible, apart from for the purpose of establishing medical stability. Yet, research has also indicated that there is little difference between inpatient and outpatient treatment in those who are not medically compromised (Crisp et al., 1991).

Some of the participants in the Minnesota starvation study (Keys et al., 1950) found the weight restoration phase more difficult than the starvation phase, due to the apparent absence of hunger and satiety cues, which is another barrier or difficulty encountered in weight restoration. As a result of difficulties identifying and interpreting hunger and satiety cues, it was not uncommon for participants to engage in binges which, post prandially, the participants found distressing. A number of participants noted that although they were back to their physiological and psychological baselines at the end of the five or nine month observation periods, they were not back to normal eating. Hence, weight restoration is not only about assisting weight gain, but also assisting and supporting the individual through the processes of relearning how to eat and how to interpret bodily cues. A multidisciplinary team is generally needed in this process, with the dietician teaching the individual normal healthy eating, the mental health professional assisting the interpretation of body and emotional cues and challenging beliefs around foods, and medical professionals to monitor physical changes and tend to medical needs. Over time it is believed the individual learns their own cues, and responds accordingly.

In recent years, the Karolinska institute has turned to the use of technology, in the form of using the mandometer to assist individuals with anorexia nervosa in developing hunger and satiety cues during the weight restoration program. The mandometer is an interactive computer program whereby the patient's plate is attached to scales, and a computer provides feedback to the patient of their rate of eating compared to a healthy rate of eating (Berg, Broden, Lindberg, & Sodersten, 2002). The Karolinska treatment centre reports remission rates of 75% after a median of 14.4 months of treatment, and of those who were in remission at the end of treatment only 7% had relapsed at 12 month follow-up (Berg, Broden, Lindberg, & Sodersten, 2002). However, participants in the study were young (average age 18 years) and generally had not had the disorder for a

significant number of years (average duration 5 years), which is typically a population with good prognosis. There have been no published randomized controlled trials on the use of the mandometer alone in the treatment of anorexia nervosa, hence little is known as to how effective the device is at teaching patients their hunger and satiety cues. The use of the mandometer in the treatment of anorexia nervosa remains a contentious topic.

A further barrier to weight restoration is that the sufferer of anorexia nervosa, by the very nature of the disorder, fears weight gain and the process of gaining weight is highly distressing. Therefore, the individual sufferer may not necessarily follow the treatment regime associated with weight restoration, and needs significant support and treatment to help them manage weight gain, and any distress associated with weight gain.

Not only is the process of gaining weight difficult for individuals with anorexia nervosa, but also maintaining the weight gained. In fact, anorexia nervosa is associated with high relapse rates, with estimates ranging from 33% to 63% (Cockell, Zaitsoff, & Geller, 2003; Field et al., 1997; Herzog et al., 1999; Keel & Mitchell, 1997; Olmstead, Kaplan, & Rockert, 1994). Individuals with anorexia nervosa often experience multiple admissions to hospital and treatment programs due to relapse (Woodside, Kohn, & Kerr, 1998). As the process of weight restoration is so difficult for the sufferer and relapse rates are so high, it is likely that starvation is not the only maintaining factor, and thereby weight restoration alone is not enough for recovery.

Medication

As a number of symptoms of anorexia nervosa mirror symptoms of other psychological disorders that respond to medication, combined with the medical model being associated with the disorder throughout its history, pharmacological interventions have been trialled in the treatment of anorexia nervosa. This includes trials of antidepressants, antipsychotics, and agents that assist gastric emptying.

Anti-depressants

As noted in chapter 2, depression is frequently observed to be a co-morbid condition with anorexia nervosa, and one of the effects of starvation is lowered mood. Based on these observations antidepressants have been trialled in the treatment of anorexia nervosa. Crisp, Lacey, and Crutchfield (1987) explored the use of Clomipramine (50mg), with participants in their study receiving either Clomipramine (50mg) or a

placebo. Those who received Clomipramine initially reported increased appetite, yet had slower weight gain than those in the placebo group, and there was no difference between the groups in a follow-up procedure conducted one to four years after the trial.

Biederman, Herzog, and Rivinus (1985), in a double-blind, placebo control trial, studied the role of Amitriptyline, with 11 participants receiving Amitriptyline, 14 receiving a placebo, and 18 with no medication. No significant difference was observed between groups on mood, weight gain and body perception, however, those who did receive Amitriptyline reported increased side effects. Halmi, Eckert, and LaDu (1986), also studied the effectiveness of Amitriptyline in the treatment of anorexia nervosa, and also observed no significant difference between groups, other than that those on Amitriptyline required less days in hospital for weight gain.

More recently, research has turned to exploring the effectiveness of selective serotonin reuptake inhibitors (SSRI) in the treatment of anorexia nervosa, in particular Fluoxetine. Attia, Haiman, & Walsh (1998), studied 31 inpatients on either Fluoxetine (60mg) or a placebo for 7 weeks, and observed no significant differences on measures of weight, mood, eating attitudes or behaviour. In a similar but longer study, by Strober, Pataki and Freeman (1999), 33 patients were observed for nine months on Fluoxetine or a placebo. Again, no significant differences were observed between groups in relation to weight, mood, eating attitudes or risk of relapse.

The state of starvation and the neurochemical imbalances associated with such a state may impair the capacity for antidepressant medication to be effective while an individual is at low weight. Hence, Fluoxetine has also been trialled in weight restored anorexics to prevent relapse (Kaye, Weltzin & Hsu, 1991). Preliminary studies on 31 weight restored women trialled on Fluoxetine indicated that at the time of follow up 29 of the women had maintained a healthy weight. After these promising results, Kaye et al., (1997) again explored the effectiveness of Fluoxetine, but this time in a randomized, double-blind control trial. Again, at a one year follow-up, patients on Fluoxetine were more likely than those receiving a placebo to have maintained a normal weight.

However, a more recent and larger study conducted by Walsh, Kaplan, Attia, Olmsted, Parides & Carter (2006), observed no evidence that Fluoxetine was superior to a placebo in weight restored women.

In summary there is little evidence to support the use of antidepressant medication while an individual is at a low body weight. Although, initial studies indicate that the use of antidepressants, in particular Fluoxetine, may be beneficial to prevent relapse and assist maintenance of a healthy weight, this has yet to be consistently demonstrated.

Antipsychotics

Antipsychotic medications have been trialled in the treatment of anorexia nervosa to address hyperactivity, obsessional thinking and thought-racing that are commonly associated with anorexia nervosa. Dally and Sargent (1960) were the first to study the use of an antipsychotic in the treatment of anorexia nervosa, and compared 30 hospitalized patients treated with Chlorpromazine (dosage as high as 1600 mg/day), with 27 hospitalized patients without medication. Although, those who received Chlorpromazine gained weight faster and were discharged sooner than those who did not, many of them experienced severe side-effects from the medication. Purging behaviour was also more common in those who received Chlorpromazine (45%), than those who did not (12%). However, upon long term follow-up there was no significant difference between the two study groups (Dally & Sargent, 1966).

Vandereycken and Pierloot (1982) later conducted a double-blind, placebo controlled cross-over design study of Pimozide, on 17 hospitalized participants. Eight participants received Pimozide (4 or 6mg/day) for three weeks, followed by a placebo for three weeks, and nine received the placebo trial first, then Pimozide. Although there was a trend to higher mean daily weight gain while on Pimozide, there was little and inconsistent differences in participants eating attitudes. Comparable results were observed in a similarly designed study using Sulpiride conducted by Vandereycken (1984), with no difference in weight gain or participant's eating attitudes observed.

In recent decades there has been a change in antipsychotic medication with the introduction of the atypical antipsychotics, which have significantly less side-effects. Initial investigations of the use of atypical antipsychotics, in particular Olanzapine, involved case studies that tended to describe some psychological improvement and effective and sustained weight gain in the cases (Boachie, Goldfield, & Spettigue, 2003; Hansen, 1999; La Via, Gray & Kaye, 2000; Powers, Santana, & Bannon, 2002).

Recently a randomised, controlled trial was conducted of Olanzapine, whereby 30 individuals with anorexia nervosa engaged in a three month CBT based treatment and were randomly assigned to treatment or placebo condition (Brambilla et al., 2007). No significant difference was observed between treatment conditions on measures of body mass index (BMI), and eating disorder symptoms. However, significant differences were observed between groups on measures of depression, anxiety, obsessivity-compulsivity and aggressiveness, with the Olanzapine treatment group experiencing significantly more of a reduction in symptoms.

In summary, there is little evidence in the form of controlled trials for the use of antipsychotic medication in the treatment of anorexia nervosa, and generally, due to the risk of side-effects, the use of antipsychotics are not recommended. However, further research is required, in the form of controlled trials of the atypical antipsychotics, such as Olanzapine, as early case observations are indicating a promising response.

Drugs That Improve Gastric Emptying

Individuals who suffer from anorexia nervosa frequently report experiencing constipation and the discomfort of feeling over-full when they do eat. Hence, medication that improves gastric emptying, such as Cisapride, has been trialled to assist recovery from anorexia nervosa. In a study by Stacher et al. (1993) no significant difference was observed between groups in relation to weight gain, but there was increased symptom relief (in the form of reduced sensation of fullness) reported by those on Cisapride as opposed to a placebo. A more recent and larger study by Szmukler, Young, Miller, Lichtenstein, and Binn, (1995) found no significant difference in relation to weight gain, or symptom relief. The use of Cisapride with sufferers of anorexia remains controversial not only due to the lack evidence to support its use, but also because of the drugs impact on cardiac conduction which may place an individual in physical jeopardy (Napolitano, Schwartz & Brown, 2000).

Other agents

A number of other agents are currently being trialled, or have been trialled in small open trials with varying success. Over the history of eating disorders, there has been speculation as to the similarities between eating disorders and substance addiction, in that individuals with eating disorders become 'addicted' to the eating disorder

behaviour (Davis, & CLaridge, 1998; Huebner, H., 1993; Klein, Bennet, Schebendach, Foltin, Devlin, & Walsh, 2004; Marrazzi, Bacon, & Kinzie, 1995). Hence, opiate antagonists such as Naltrexone, have been trialled in the treatment of anorexia nervosa and bulimia nervosa. Initial findings indicate positive response in terms of reduced symptomatology, in particular for binge/purge behaviours (Kaye, 1987; Marrazzi, Bacon, & Kinzie, 1995).

Other agents that stimulate appetite have also been explored in the treatment of anorexia nervosa, including Cyproheptadine, a centrally acting serotonin antagonist. In a random controlled study, no significant difference overall was observed between groups in relation to weight gain (Vigersky, & Loriaux, 1977). However, upon breaking anorexia nervosa sufferers into their subtypes, it was noted that those who had anorexia nervosa restricting type, experienced enhanced weight gain on Cyproheptadine.

Tetrahydrocannabinol (THC) has also been tested in the treatment of anorexia nervosa, due its appetite stimulating properties, and compared with Diazepam (Gross, Ebert & Faden 1983). However, there was no significant difference between groups in relation to appetite and weight gain, and those in the THC group reported increased psychological symptoms such as paranoia.

Summary of Biological Processes of Recovery

In summary, there are significant grounds in which both weight restoration and medication are indicated, but each is associated with their own difficulties and may not necessarily be the key factor in treatment. The process of weight restoration, although physically and psychologically beneficial, is associated with risk of refeeding syndrome, difficulties in re-establishing hunger and satiety cues, client/patient resistance and high relapse rates. While, medications have a risk of side effects, and although medications are commonly used in the treatment of anorexia nervosa, there is little clinical evidence to indicate their effectiveness. However, the lack of evidence may be due to methodological issues, such as low sample sizes. These forms of treatment have been criticised, often by those who have experienced them for being too reductionistic, and not addressing the underlying issues.

Social-Cognitive Pieces of Recovery

An element of the mind, and for some an underlying issue, noted in the previous chapter was the unhealthy and unhelpful thoughts, feelings and behaviours created by the social-cognitive processes of social learning and social comparison. The role of treatment from the social-cognitive approach is to challenge and change the thoughts maintaining anorexia nervosa, and break the cycle of social learning and social comparison, which may also be playing a role in the maintenance of the disorder. Both cognitive behavioural therapy and media literacy programs are interventions that can be used to challenge thoughts, and break some of the unhealthy social learning and comparison processes. However, the level of efficacy of both these programs in the treatment of anorexia nervosa is yet to be firmly established.

Cognitive Behaviour Therapy

Cognitive Behaviour Therapy (CBT) refers to a group of therapies aimed at modifying cognitions, assumptions, beliefs and behaviours that may be unhelpful for the individual or are creating emotional distress (Donohue et al., 2003). A core premise of CBT is that challenging and changing an individual's thoughts will lead to changes in emotions and behaviour (Donohue, Fisher, & Hayes, 2003). CBT has been demonstrated as an efficacious form of treatment for a number of psychiatric disorders, but particularly in the treatment of anxiety and depression (Barlow, & Lehman, 1996; Clark, 1997; Fuchs, & Rehm, 1977; James, & Blackburn, 1997; Robinson, Berman, & Neimeyer, 1990; Roth, Fonagy, & Parry, 1996; Scott, 1996; Shipley, & Fazio, 1973; Wilson, 2007). Mood changes result when negative or anxiety provoking thoughts are identified, challenged and replaced with more realistic thoughts.

With the demonstrated efficacy of CBT with other psychiatric disorders, it was not long before the application of CBT to the treatment of eating disorders was explored. Fairburn (1985) was the first to conceptualize and apply CBT to the eating disorder population, and developed a CBT program for bulimia nervosa. Garner, Vitousek and Pike (1997) have since also explored the CBT framework in the understanding and treatment of anorexia nervosa. As result of the pioneering work of Fairburn (1985), and Garner et al., (1997), there are now manualized CBT treatment formats for both bulimia

nervosa and anorexia nervosa (Fairburn, 2008; Waller et al., 2007; Wilson & Fairburn, 1998).

Individuals with anorexia nervosa spend a considerable amount of time thinking about food, body and weight (Schaefer & Rutledge, 2004). These thoughts tend to take the form of negative self judgements and rules about food, body, weight and exercise. A number of these cognitions have been a part of the individual sufferer's thought process prior to the development of anorexia nervosa. As a result of these thoughts, the individual with anorexia nervosa experiences a high drive for thinness, intense body dissatisfaction, and is constantly striving to meet all the rules established for the self, fearing an impact if one rule is broken, and punishing the self when rules are broken (Schaefer & Rutledge, 2004). In CBT with individuals struggling with anorexia nervosa, as well as other eating disorders, both the therapist and sufferer work collaboratively to identify thoughts that maintain the anorexia nervosa, and explore means of cognitively and behaviourally challenging these thoughts (Fairburn, 1985; Garner et al., 1997). There is also a focus on addressing eating disorder behaviours, as well as other potentially destructive behaviours, such as bingeing, purging and over-exercising (Fairburn, 1985; Garner et al., 1997). It is believed that, by challenging and changing these thoughts and behaviours there will be a reduced need or desire to engage in eating disorder behaviours, reduced body dissatisfaction and distress, and thereby a reduction in anorexia nervosa, or other eating disorder symptoms (Fairburn, 1985; Garner et al., 1997).

Research has demonstrated that CBT is an efficacious form of treatment for bulimia nervosa (Fairburn et al., 1991; Fairburn et al., 1995; Freeman, Dunkeld-Turnbull, & Henderson, 1988; Mitchell et al., 1990; Olmsted et al., 1991; Thackwray, Smith, Bodfish, & Myers, 1993; Wilson, Rossiter, Kleinfield & Lindholm, 1986). However, as yet few research studies exist in the literature exploring the effectiveness of CBT with anorexia nervosa (Fairburn, 2005). The studies that do exist in the literature are pre and post test in nature, and compare use of CBT with other treatments or therapies (such as family, interpersonal, supportive psychotherapy, nutritional counselling and medication). All published studies have demonstrated an improvement in participants between pre and post testing, in the form of increased weight, restoration of menarche, maintenance of

weight and reduced rate and pace of relapse (Ball & Mitchell, 2004; McIntosh et al., 2005; Serfaty, Turkington, Heap, Ledsham & Jolley, 1999).

However, despite the initial signs of efficacy in the use of CBT in the treatment of anorexia nervosa two areas of contention exist, both in relation to the level or degree of improvement experienced by individuals receiving treatment. The first area of contention revolves around the question: is CBT as efficacious as, or more efficacious than, other forms of treatment? Ball and Mitchell (2004) conducted a study, with 25 sufferers of anorexia nervosa, comparing the efficacy of CBT to family therapy. At the six month follow-up 72% of those completing treatment had improved, but there was no significant difference between groups, and many participants had not reached symptomatic recovery. McIntosh and colleagues (McIntosh et al., 2005) compared CBT, to interpersonal psychotherapy (IPT), and a supportive psychotherapy control group. Interestingly, supportive psychotherapy was observed to be more efficacious than both CBT and IPT.

In comparison with nutritional counselling, CBT is associated with significantly better outcomes, not only as indicated in measures of mood and eating disorder symptomatology, but also in drop-out rates, as well as rate and pace of relapse (Pike et al., 2003 Serfaty et al., 1999). An attempt has been made to explore the efficacy of CBT compared to medication regimes alone, but due to high rates of participant drop-out in the medication groups, exact details of efficacy of CBT compared to medication alone are yet to be established (Halmi et al., 2005). What these studies indicate is that although some improvements are observed when CBT is used in the treatment of anorexia nervosa, its level of efficacy is yet to be thoroughly established, and CBT may be no more efficacious than other forms of psychological therapy for anorexia nervosa. But CBT certainly appears more efficacious in the treatment of anorexia nervosa, based on studies to date, than other forms of non-psychological treatment alone such as nutritional counselling and medication (Wilson, Grilo & Vitousek, 2007).

The second, and probably more pertinent area of contention, is just how much improvement is observed with the use of CBT in the treatment of anorexia nervosa. A number of studies noted that participants met criteria for 'fair' to 'good' outcomes, however, 'fair' to 'good' outcome does not necessarily reflect overcoming eating disorder symptomatology (Ball & Mitchell, 2004; McIntosh, 2005). Hence, a number of

participants, although they had significantly improved on a number of measures, were still symptomatic (Ball & Mitchell, 2004).

Media Literacy

As noted in chapter 2, the media is frequently criticised for its role in the development of anorexia nervosa, with its constant portrayal of the thin ideal, and unhealthy or unrealistic messages regarding food, body and weight. Due to the role of the media in the establishment of the thoughts that contribute to the onset and maintenance of anorexia nervosa, media literacy has started to become part of both prevention and treatment programs.

Media literacy programs aim to provide individuals with the tools to understand and analyse the media, identify the external messages portrayed in the media and how these messages affect those consuming the media (Ontario Association for Media Literacy, 1989). By encouraging individuals to consume the media in an active, analytical and critical manner, the individual becomes more aware of potential misrepresentation and manipulations within the media, and how that can affect consumers' construction of reality (Ontario Association for Media Literacy, 1989). Previously, media literacy programs have effectively been used in the public health arena to increase students' abilities to resist social pressures towards, and perceived desirability of tobacco, alcohol and drug abuse (Austin & Johnson, 1997; Austin, Pinkleton, & Funabiki, 2007; McAlister, Perry, Killen, Slinkard & Maccoby, 1980).

In relation to anorexia nervosa, media literacy programs aim to provide individuals with the skills to critically engage with the media, and in turn identify, analyse and ultimately challenge the thin ideal (Wade, Davidson, & O'Dea, 2002). Thus, breaking the processes of social learning and social comparison noted in chapter 2, and challenging already formed cognitions that may play a role in the maintenance of anorexia nervosa.

Although media literacy programs may be encountered as a component of a broader treatment programs in the management of anorexia nervosa, the bulk of the research on media literacy programs explores the role of these programs in the prevention of eating disorders. Research findings to date have been inconsistent. Some research findings have illustrated that media literacy programs have no effect on eating attitudes or

behaviours or weight concerns (Irving & Berel, 2001; Levine, Piran & Stoddard, 1999; Levine, Smolak & Schermer, 1996). While other studies have indicated that media literacy programs reduce thin ideal internalization, body dissatisfaction, drive for thinness, disordered eating, weight concerns, feelings of ineffectiveness, and increases scepticism of media messages (Coughlin & Kalodner, 2006; Hennessy, 2008; Irving & Berel, 2001; Wade, Davidson, O'Dea, 2002; Wade, Davidson, & O'Dea, 2003; Watson & Vaughn, 2006; Wilksch, Tiggemann, & Wade, 2006). The variation in findings is largely due to program differences (in terms of content, length, intensity and interactivity), sample populations, sample size and methodology. Although research is ongoing into exploring what makes an effective media literacy program (Irving & Berel, 2001; Watson & Vaughn, 2006), it appears that the more intensive and interactive programs are more efficacious. However, it is yet to be established with which populations media literacy programs are most effective, and whether media literacy programs are an efficacious treatment for individuals who have already developed anorexia nervosa.

Summary of Social-Cognitive Processes of Recovery

In summary, a defining feature of anorexia nervosa, which needs to be addressed to help the individual on the path to recovery, is the obsessional thought processes around food, weight, shape, and body. CBT and media literacy programs are interventions aimed at addressing the obsessional thought processes, at the internal and external level respectively. CBT primarily addresses the internal thoughts that maintain anorexia nervosa, thoughts that may have been established by the processes of social learning and social comparison. Through the process of CBT it is hoped that distressing and anorexia nervosa thoughts are reduced, as well as eating disorder symptoms. Media literacy programs, on the other hand, aim to provide the individual with the skills to identify and challenge unhelpful or unhealthy messages that may be around them. The process of media literacy can also challenge already existing cognitions. Although both these programs have been demonstrated to be efficacious in other populations, their efficacy is yet to be established in the treatment of anorexia nervosa. Also, in CBT and media literacy the onus is very much on the individual, and changing their way of interacting with the world. Yet sometimes the individual is unable to do this on their own and may

need support, or there are aspects of the environment that have an impact on the individual that cannot be addressed through CBT.

Family Pieces of Recovery

There is extensive recognition in the literature, and in the clinical field, as to the role of a variety of factors surrounding the individual sufferer, in the aetiology, maintenance and recovery from anorexia nervosa. Family is one such factor that has been frequently turned to in the treatment of anorexia nervosa. Although there are a large number of different forms of family therapy, two in particular have been explored and trialled in the treatment of anorexia nervosa; structural family therapy (Minuchin, 1974) and the Maudsley Model of family therapy (Dare, 1985). Initial research findings are promising, but there are a number of caveats and consequentially family therapy may only be an efficacious form of treatment of anorexia nervosa for a small group of individuals.

Structural Family Therapy

In 1974 Minuchin developed a form of family therapy known as structural family therapy, which became the dominant form of family therapy used in the treatment of anorexia nervosa throughout the 1970s and 1980s. One of the premises behind structural family therapy is that a family is like an organization, in that the family unit needs to have a clear organizational hierarchy or structure, as well as clear boundaries between members of the unit (Minuchin, 1974). Hence, a disorder or illness cannot be understood outside of the family context, as the illness may serve a purpose within the family system or is maintained by the family system. The focus of structural family therapy was to assist ‘psychosomatic’ families to identify and challenge maladaptive family interactions that support a dysfunctional or non-existent family hierarchy, and as a result develop a healthy hierarchy and boundaries between members (Minuchin, 1974). Psychosomatic families are families characterized by enmeshment, over-protectiveness, rigidity and a lack of conflict resolution skills (Minuchin, 1974). As noted in chapter 2, these characteristics are commonly observed in families with anorexia nervosa, and are believed to play a role in the aetiology and maintenance of anorexia nervosa. Hence, it

appears appropriate that structural family therapy be used in the treatment of anorexia nervosa.

There has been little research to demonstrate the effectiveness of structural family therapy in the treatment of anorexia nervosa, yet the research that exists indicates improvements have been experienced in up to 90% of individuals with anorexia nervosa treated with structural family therapy (Liebman, Minuchin, & Baker, 1974; Martin, 1985; Minuchin, Rosman, & Baker, 1978). However, although findings of the studies appear promising, the studies have tended to be uncontrolled in nature, and on populations that were already associated with a good prognosis. Hence, the efficacy of structural family therapy in the treatment of anorexia nervosa is not yet established, as there is scarce evidence in the form of controlled trials.

Structural family therapy is also a particularly confronting form of family therapy for those involved, as the role of the therapist at different stages of therapy is to invoke a particular situation, crisis or conflict, which enables the dysfunctional family interactions to be uncovered. Also, despite structural family therapists claiming their focus in therapy is on the present family interactions that maintain the disorder (Colapinto, 1982), structural family therapy has been criticised for labelling families as dysfunctional and being aetiologically focused and based (Eisler, 2005; Rhodes, 2003). Thus a stigma has developed around family therapy; if a family needs to enter family therapy, then they are dysfunctional and are to blame for a family member's anorexia nervosa. This in turn creates feelings of guilt and shame, and impedes a family's willingness to approach and engage in treatment.

Maudsley Model of Family Therapy

In recent times a new form of family therapy was developed by Dare (1985), and later manualized by Lock and colleagues (Lock, LeGrange, Agras & Dare, 2001), called the Maudsley Model of family therapy, which overcomes a number of the criticisms associated with structural family therapy. As noted in chapter 2, there is a lack of consensus and clarity as to the role of the family in the aetiology of anorexia nervosa. The Maudsley Model arose from a questioning of the family's responsibility for the aetiology of a family member's anorexia nervosa (Rhodes, 2003). Unlike structural family therapy, which places the disorder within the family and perceives the disorder as

a product of family dysfunction, proponents of the Maudsley Model place the disorder outside of the family, and it is perceived as a force that oppresses the whole family (Dare, 1985; Lock et al., 2001). Proponents of the Maudsley Model believe that the family needs to be empowered to unite to overcome anorexia nervosa. By placing the disorder outside of the family there is less focus on aetiology, less blame and guilt, and less labelling of the family as dysfunctional compared to structural family therapy (Rhodes, 2003).

The Maudsley Model approach consists of three distinct phases; during the first phase the focus is primarily on re-feeding, during which the control of eating is taken from the individual with anorexia nervosa and given to the family (Lock et al., 2001). During this phase the urgency of treatment and the severity of the disorder are often highlighted. The second phase of treatment consists of slowly handing control of eating back to the individual with anorexia nervosa in a negotiated manner (Lock et al., 2002). In the third phase the individual has control of their eating, focus is turned away from eating and towards adolescent issues and other family issues. Through these phases of treatment the individual with anorexia nervosa regains weight, learns healthy eating habits, and goes through the process of individuation (a key developmental process).

The Maudsley Model is the most researched of all family therapies in relation to anorexia nervosa (Wilson, Grilo, & Vitousek, 2007). Initial research that was conducted exploring the Maudsley Model as a means of preventing post-hospitalization weight gain, indicated a 90% full recovery rate, even at a five year follow-up (Russell, Szmulker, Dare, & Eisler, 1987). Such positive response to treatment has been replicated in both a case study (LeGrange, Binford & Loeb, 2005) and randomised controlled studies (Eisler et al., 2000; LeGrange, Eisler, Dare, & Russell, 1992; Lock, Agras, Bryson, & Kraemer, 2005). However, the research population in these studies tended to consist of individuals with anorexia nervosa who were young, and who had not experienced the disorder for a significant number of years, a population which is generally associated with a better prognosis (Wilson et al., 2007). In fact, research has demonstrated that with increasing symptom duration there is a decrease in treatment response (Russell, Szmulker, Dare, & Eisler, 1987), and in adult sufferers who have experienced the anorexia nervosa for approximately six years there is little to no treatment effect (Dare, Eisler, Russell, Treasure & Dodge, 2001). The Maudsley Model is also an intense form of treatment;

whereby the positive response rates may be a reflection of treatment intensity, as opposed to treatment modality. In fact, when a similar form of family therapy was compared with intensive individual therapy, it was observed to be only slightly more efficacious than ego-orientated psychotherapy (Robin, Siegal, Koepke, Moye & Tice, 1994), and equivalent to cognitive behavioural therapy (Ball & Mitchell, 2004) in adolescents and young adults.

Despite these areas of weakness, out of all the treatments for anorexia nervosa, the Maudsley Model currently has the largest evidence base. Consequentially, a recommendation has been made in the National Institute for Clinical Excellence Guidelines (2004), for the use of the Maudsley Model of family therapy in the treatment of anorexia nervosa in adolescence.

Summary of Family Processes in Recovery

To summarize, early forms of family therapy, in particular structural family therapy, aimed to address family processes believed to be associated with anorexia nervosa, but in doing so, a stigma of labelling the family of suffers as dysfunctional, and in turn family guilt and blame ensued. In more recent years a form of family therapy that places the disorder outside of the family unit, thereby reducing labelling, guilt and blame, was developed, known as the Maudsley Model. Both forms of therapy have research findings indicating efficacy in treatment of anorexia, yet the research supporting the Maudsley Model is more numerous and scientific in nature. However, research on family therapy and anorexia nervosa tends to have taken place on those who already have a good prognosis, and there is little to no evidence suggesting that family therapy is an efficacious form of treatment for adults. Therefore although family therapy is effective form of treatment, it is only effective for a limited group of individuals with anorexia nervosa.

Existential Pieces of Recovery

Treatment, be it from the biological, social-cognitive or family paradigm, is unlikely to be effective if the individual has no desire or will to live. The existential paradigm begins to explore an individual's will to live, by exploring their life-meaning, which as noted in previous chapters, may play a role in the aetiology and maintenance of

anorexia nervosa. A number of forms of treatment exist that directly or indirectly address life-meaning, however, the exact role of life-meaning in recovery varies, based on the orientation of the treatment. Hence, the exact role of life-meaning in recovery is yet to be established.

Life-Meaning

Life-meaning is associated with improved physical and psychological health (Reker et al., 1987; Wong & Reker, 1993), as individuals with life-meaning have a framework for interpreting the world and establishing goals, which in turn leads to a sense of achievement and purpose. In having life-meaning they have a reason in life to take preventative action against physical and psychological malaise, and reason to solve or address problems when they arise. Hence, individuals with life-meaning tend to have a healthy lifestyle, which is a goal in the recovery of anorexia nervosa.

As opposed to those without or low in life-meaning, who tend to be less physically and psychologically healthy than their counterparts with life-meaning (Fox & Leung, 2004; Klinger, 1977; Man, Stuchlikova & Klinger, 1998; Reker, 1997; Reker et al., 1987; Wong & Reker, 1993). Individuals lacking in life-meaning tend to have no framework in which to organize information and interact with the world, leading to distress and confusion, and without such a framework they may struggle to identify and achieve goals that may give them a sense of purpose and achievement. They may at times feel they have no reason to prevent or address physical or psychological problems, which are reflected in feelings of apathy and boredom that are associated with a lack of life-meaning (Frankl, 1967). As a lack of life-meaning is associated with distress and apathy, if an individual enters or is in this state, it can create barriers to recovery.

A lack of life-meaning may contribute to the onset of anorexia nervosa, either as a misguided means of attempting to develop life-meaning, or as a means of trying to cope with life-meaning (Fox & Leung, 2004; Pegrum, 2005). Yet, as noted in the previous chapter, as the disorder develops it becomes their source of life-meaning, as it provides a framework for interacting with the world, and the establishment of goals that create a sense of direction and achievement. However, the anorexia nervosa framework is exceptionally narrow, and thereby impairs an individual's ability to live. Hence,

individuals with anorexia nervosa may still experience distress, as having anorexia nervosa as a source of life-meaning is not fulfilling their existential needs.

As life-meaning is associated with the goal of recovery, a lack of life-meaning is associated with distress and barriers to recovery, and individuals with anorexia nervosa tend to have had difficulties with life-meaning over the course of disorder it is important that life-meaning is explored and addressed as part of treatment. This premise is further supported by qualitative research on recovered sufferers who note the importance of developing life-meaning in the recovery from anorexia nervosa (Kenny, 1995).

Two powerful quotes Victor Frankl uses in his book, *Man's Search for Meaning* (1985), demonstrate the importance of life-meaning:

To live is to suffer; to survive is to find meaning in that suffering. (p. xvii)
He who can understand a why to live can bear almost any how. (p. xviii)

The experience of anorexia nervosa, is suffering, and the path of recovery is often very trying and testing, but the exploration of life-meaning may enable a sufferer to find the 'why' they need to bear the 'how' of anorexia nervosa and the process of recovery.

For an individual with anorexia nervosa, the processes of recovery involves relinquishing their only source of life-meaning (anorexia nervosa) and developing another source of life-meaning or finding a means of coping with existential distress. These processes appear extremely daunting and overwhelming to the individual's with anorexia nervosa, who may feel that they are back facing the same issues that contributed to the aetiology but with even fewer resources.

Victor Frankl developed a form of therapy aimed at assisting an individual in developing life-meaning and analysing their existence, known as logotherapy (Frankl, 1986; 1988). Logotherapy is a form of psychotherapy, based on premises of life-meaning noted in chapter 2, as well as existential philosophy that focuses on assisting the individual in exploring and discovering their own personal life-meaning. Techniques used include: paradoxical intention, de-reflection and the socratic dialogue (Frankl, 1986; 1988). In more recent years Wong (1998) has extended the pioneering work of Frankl, developing meaning-centred counselling, which is a more cognitive behaviourally-based form of logotherapy. Both logotherapy and meaning-centred counselling have been used

in a variety of contexts, but have been particularly effective with those facing death, such as the elderly, and the terminally ill (Breitbart, & Heller, 2003; Greenstein, 2000). Despite qualitative evidence indicating the importance of life-meaning in recovery, neither of these forms of therapy have been clinically trialled in the treatment of anorexia nervosa.

The importance of life-meaning in the recovery from mental illness, not just anorexia nervosa, is also reflected in the number of forms of therapy that directly or indirectly (through values) tap into life-meaning, such as motivational interviewing, Acceptance and Commitment Therapy (ACT) and Dialectical Behavioural Therapy (DBT).

Motivational interviewing is a form of client-centred counselling focused on assisting the client in exploring and resolving their ambivalence towards change (Miller & Rollnick, 2002). The motivational interviewing approach works closely with the TTM (Prochaska, DiClemente & Norcross, 1992). Motivational interviewing, attempts to assist an individual's movement through the stages by working collaboratively with the client, and providing the space for the client to explore and articulate the costs and benefits of change, and develop discrepancy between the individual's values and current behaviour (Miller & Rollnick, 2002). As motivational interviewing focuses on values, which is a cognitive component of life-meaning (Reker & Wong, 1988), this technique indirectly assists an individual uncovering a source of life-meaning. The uncovering of a source of life-meaning may also propel the individual through the stage of change.

The efficacy of motivational interviewing has been demonstrated with addictions (Miller, Benefield & Tonigan, 1993; Project MATCH Research Group, 1997; Stephens, Roffman & Curtin, 2000), and it is increasingly being used in the treatment of eating disorders (Britt, Hudson & Blampied, 2004). Motivational interviewing has been demonstrated to be as effective as CBT in the reduction of bulimia nervosa symptoms (Treasure et al., 1999). Although literature exists detailing the theoretical basis for, and outlining the possible implementation of motivational interviewing with anorexia nervosa (Orchard, 2003; Treasure & Schmidt, 2008; Treasure & Ward, 1997), there is yet to be a randomised control trial of motivational interviewing and anorexia nervosa.

Acceptance and Commitment Therapy (ACT) is a form of behaviour therapy that targets ineffective control strategies, and experiential avoidance (Hayes, Kirk, & Kelly, 2003). Unlike other forms of therapy that aim to rid an individual of difficult thoughts or feelings, ACT aims to build an individual's ability to be effective and flexible, and engage in living a valued life, despite the presence of negative events, thoughts and feelings, which the individual will inevitably face in life (Hayes et al., 2003). A component of ACT involves assisting the individual in gaining clarity of their values, and encouraging the development of goals in accordance with these values (Hayes et al., 2003). Again, as values are a cognitive component of life-meaning, by engaging in exploration of an individual's values one is also engaging in exploring life-meaning, and by converting values into goals, one may also be engaging in the process of meaning making. The efficacy of ACT has been demonstrated in relation to a number of psychological disorders and problem behaviours (Forman, Herbert, Moitra, Yeomans, & Geller, 2007; Gaudiano & Herbert, 2006; Twohig, 2008; Woods, Wetterneck & Flessner, 2006). As yet there is no randomized controlled trial of the use of ACT in the treatment of anorexia nervosa in the literature, yet the efficacy of ACT in the treatment of anorexia nervosa has been demonstrated in case studies (Bowers, 2002; Heffner, Sperry, Eifert, & Detweiler, 2002).

Dialectical Behavioural Therapy (DBT) is a multimodal form of cognitive behavioural therapy, originally developed for those suffering from borderline personality disorder (Linehan, 1993). The focus of DBT is on assisting individuals in identifying, tolerating and managing emotions, and assisting the building of a sense of validation and acquiring a balance between acceptance and change. The overall goal of DBT is to help clients develop a life worth living. DBT involves four skill components: mindfulness, interpersonal effectiveness, emotion regulation, and distress tolerance (Linehan, 1993). Part of the distress tolerance skills set is meaning making, which is based on the premise that if one can find meaning in a crisis, one is more likely to tolerate the distress. The efficacy of DBT has been demonstrated in the treatment of borderline personality disorder (Bohus et al., 2004; Lynch, Trost, Salsman, & Linehan, 2007; Linehan, Heard, & Armstrong, 1993; Linehan, Schmidt, & Dimeff, 1999; Linehan, Comtois, & Murray, 2006; Osborne, & McComish, 2006; Perseius, Ojehagen, Ekdahl, Asberg, & Samuelsson,

2003) and depression (Chew, 2007; Harley, Sprich, Safren, Jacobo, & Fava, 2008; Lynch, Cheavens, & Cukrowicz, 2007; Lynch, Morse, Mendelson, & Robins, 2003). In relation to eating disorders, DBT has been demonstrated to be an effective alternative to other forms of therapy, such as CBT, in the treatment of binge eating disorder (Telch, Agras, & Linehan, 2000; 2001), and bulimia nervosa (Safer, Telch, & Agras, 2001). To date, although the theoretical groundings and rationale for the use of DBT in the treatment of anorexia nervosa has been discussed (McCabe & Marcus, 2002), there is yet to be a randomised controlled trial published in the literature.

Although all these treatments directly or indirectly address life-meaning, there are subtle variations in how life-meaning in the process of therapy is perceived and targeted, which reflect a significant area of contention: what are the exact processes of life-meaning in recovery? Does one develop or discover life-meaning which then provides the motivation for treatment (as in motivational interviewing), or does one through the process of recovery discover and develop life-meaning (as in logotherapy & meaning-centred counselling), or is developing life-meaning only a small component of the recovery process (as in ACT and DBT), or is life inherently meaningless, and recovery involves finding ways of managing distress created by meaninglessness (ACT and DBT), and does this vary from individual to individual?. In other words, although the importance of life-meaning in the recovery from anorexia nervosa, as well as other mental illnesses, is indicated, there is a lack of clarity around how life-meaning contributes to recovery.

Summary of Existential Processes of Recovery

In summary, the role of life-meaning in recovery from anorexia nervosa has been mooted, due to the role of life-meaning across the disorder. Individuals with life-meaning are physiologically and psychologically healthier than those with low life-meaning; a lack of life-meaning can create barriers to recovery, and recovered sufferers have noted the importance of life-meaning. A number of treatments exist that directly or indirectly assist the exploration of life-meaning. Yet, it remains unclear as to how exactly does life-meaning contribute to recovery.

The Problem and the Phenomena: Recovery from Anorexia Nervosa

The process of recovering from anorexia nervosa is highly complex, and involves changes occurring at a number of levels. A number of these changes involve addressing processes and difficulties that contributed to the onset and maintenance of the disorder. Some of the different levels of change involved recovery are reflected in the understanding and treatments from different paradigms.

Treatment from the biological paradigm aims at addressing the physiological imbalances noted to contribute to the maintenance of anorexia nervosa through weight restoration, and medication. However, each of these treatments on their own are not associated with enduring change. Treatment from the social-cognitive approach attempts to address negative and unhelpful thoughts, feelings and behaviours created through the processes of social learning and social comparison, through CBT and media literacy. However, the efficacy of these treatments is yet to be firmly established, and the focus of these treatments is on the individual changing their internal processes and how they interact with the world. Yet some individuals with anorexia nervosa may be unable to do this or they may be in an environment which is negative. Family therapy tends to attempt to address an aspect of the individual's environment; the family. Yet the different types of family therapy vary significantly, and the generalizability of the efficacy of the treatment to broader population (such as older and increased length of symptomatology) is yet to be established. Recovery from the existential perspective involves the establishment of life-meaning, and ways to cope with a lack of life-meaning, and a number of treatments exist that directly or indirectly target this. However, the exact role of life-meaning in recovery remains unclear.

Each of the four paradigms have contributed significantly to the knowledge, understanding and treatment of anorexia nervosa, however, when considered and used in isolation the paradigms and treatments struggle to capture the experience of and effectively treat anorexia nervosa.

There is increased acknowledgement of the need to tie together different perspectives and treatments, as indicated by the use of multidisciplinary teams in the treatment of the disorder. However, a framework in which knowledge can be

meaningfully organized is needed, as without such a framework the subjective experience of anorexia nervosa is lost, and the efficacy of treatment may be jeopardized.

Chapter 4: Method and Data Analysis

Research Question

In chapter 1 the issue of fragmentation of the subjective experience of mental illness, in particular anorexia nervosa, and its impact was raised. Chapters 2 and 3 reflect these concerns, and demonstrate that although a lot is known about anorexia nervosa, the knowledge exists in fragments, resulting in understanding of the individual as a whole being lost, questions going unanswered, and difficulties in implementing efficacious interventions being encountered. The aim of this research was to address the issue of fragmentation by tying together the established knowledge of anorexia nervosa that exists in the field with the experience of those who have recovered from anorexia nervosa in a meaningful manner to answer the question; what is the subjective experience of anorexia nervosa? Sub-questions of what is the subjective experience of the onset, maintenance and recovery of anorexia nervosa were established to assist manageability of information and data. The research question was kept broad throughout the research to prevent elements of the subjective experience and context from being lost.

The intended ended product of the research was to develop a picture of the subjective experience of anorexia nervosa across the history of its personal expression, both from theory and from individual experiences, that captures the complexity and heterogeneity of those experiences. Understanding gained from this research could then be used to guide further research, and assist development and implementation of interventions.

Participants

Fifteen female self-defined recovered sufferers of anorexia nervosa were interviewed for this study, from Victoria and Queensland, Australia, and Ontario, Canada. As noted in the previous chapter there is significant variance in the literature of what constitutes recovery, and outcome findings vary depending on one's definition. To enable breadth of information on anorexia nervosa to be collected, as well as capture individuals at different stages in the process of recovery, the notion of recovery was left as defined by the participants. As Table 3 indicates, participants ranged in age from 15 to 52 years ($x = 30.7$, $SD = 11.4$), and varied in their stage of recovery from recently entering

recovery (0 months) to 28 years ($x = 7.4$, $SD = 9.6$). Duration of the disorder varied from 1½ years to 40 years ($x = 9.1$, $SD = 9.4$), with age of onset between 7 and 19 years ($x = 14.1$, $SD = 2.9$).

Table 3: Participant's Anorexia Nervosa Demographics

	N	Minimum	Maximum	Mean	Std. Deviation
Onset	15	7.00	19.00	14.10	2.89
Duration	15	1.50	40.00	9.07	9.39
Recovery	15	0.00	28.00	7.43	9.68
Current	15	15.00	52.00	30.70	11.44
Valid N (listwise)	15				

Participants had experienced a number of treatments as indicated in Table 4, including hospitalization, psychologists, general practitioners and dieticians.

Table 4: Participants' Treatment Experiences

Treatment	Number of Participants
Multiple Treatments	12 (80%)
Hospitalization	10 (67%)
Counsellor	10 (67%)
Psychiatrist	8 (53%)
Psychologist	6 (40%)
General Practitioner	5 (33%)
Dietician	4 (27%)
Alternate (e.g. spiritual healer)	3 (20%)
Group work	2 (13%)
ECT	2 (13%)
Self-directed	1 (7%)

Researcher

During the time of conducting the interviews and collecting the data, the researcher was an Australian probationary psychologist completing a combined Master of Psychology (Clinical)/Doctor of Philosophy and was working as a drug and alcohol counsellor at a community agency. During the time of data analysis, the researcher was working as a Clinical Psychologist at an Eating Disorder Day Patient Program in Canada. The researcher's theoretical orientation was eclectic, with some consideration of existential principles of complexity, freedom and responsibility in her practice.

Interview Questions

The interview (Appendix A) was semi-structured in nature, and consisted of two parts. The first part aimed to explore participants experience with anorexia nervosa throughout the course of the disorder. Open-ended questions were used to start this process, and included: can you describe for me your experiences around the onset of the disorder? The use of open questions allowed participants to provide detailed descriptions of the processes that were involved over the course of their condition. Counselling prompts and questioning prompts were then used to clarify responses and elicit further responses.

The second part of the interview was more structured, and aimed to explore the relevance of theory to participant experience. The second part of the interview was refined after the first two interviews were conducted, due to initial results not fully addressing the research question. The second part of the interview (Appendix A) consisted of feeding back theory from four different paradigms (biological, social, family and existential), and getting participants to comment on how relevant the theory was to their experiences. Throughout the interview, where necessary, participants were asked to clarify their experiences and elaborate on their own personal experience of the theory or knowledge presented. Interview questions were developed through a review of the literature and reducing theory to a basic general form, to which participants could attach their own meaning.

Procedure

Upon the research being approved by Australian Catholic University ethics committee, the data collecting process began (Appendix B). Participants were obtained through notices at and in newsletters of varying eating disorder associations (for example, Eating Disorder Foundation of Victoria, Oak House, Homewood Health Centre, Eating Disorder Association of South Australia, Eating Disorder Association of Queensland, & ISIS), as well as in the voluntary registration section of a Melbourne Daily Newspaper, *The Herald Sun*.

Upon responding to these notices an interview time was scheduled with the primary researcher. Interviews were conducted at Australian Catholic University where possible, otherwise at the association or treatment facility, in the participant's home or a quiet location convenient for the participant. Before beginning the interview participants were given an information letter, and asked to sign a consent form (Appendix C).

Upon signing the consent form and completing a brief questionnaire on the demographics of their disorder (Appendix D), the recording equipment was turned on and the interview began. Initial recording equipment was audio-cassette based, but this was found to be impractical, and at times not sensitive enough to pick up sounds. After four interviews, recording equipment was changed to a digital dictaphone, which at times was too sensitive to sound (i.e. wind), but was more practical.

The interview began with another explanation of the format of the interview, and participants were informed they may ask questions at any time or feel free not to answer questions. Adequate time of up to 2 hours was scheduled, so the interview was not impeded by time constraints. Upon conclusion of the structured part of the interview, participants were asked if there was anything further they wanted to contribute or questions they wanted to ask, and in conclusion, were thanked for their participation.

All interviews were transcribed verbatim with the assistance of a voice recognition computer program, *Dragon: Naturally Speaking*, and were then checked on a number of occasions by the researcher for accuracy. The consent form was separated from the questionnaire, audio-file and transcript, and participants were given a number, and pseudo-name.

Data Analysis

Methodological Orientation

The aim of this research was to understand the complex subjective experience of anorexia nervosa, by tying together both theory and experiences over the course of the disorder. As qualitative methodology is a form of methodology which enables the researcher to look at phenomena in terms of their breadth, depth and complexity, it suited the aims identified and was thereby used in this research.

The essential research question was, what is the human subjective experience of anorexia nervosa? The subjective experience of anorexia nervosa is the experience of

anorexia nervosa as a whole, not just specific pieces, which is what research has tended to focus on to date. Due to the broad and abstract nature of the research question, the metaphor of a puzzle is used to guide the reader through the process of answering the research question. In order to move towards having an understanding of the complete picture one first needs to identify and gather the pieces that belong to the puzzle, a process which was guided by phenomenological methodology. The phenomenological methodology used included participants being identified and located, based on them experiencing the phenomena being explored, and the questions asked encouraged participants to reflect upon their experiences and the implications the condition has had on their life. In other words, phenomenological methodology enabled the identification, confirmation, clarification and description of pieces of experience.

However, identification and description of the pieces of the subjective experience of anorexia nervosa, does not in itself answer the research question, as the research question reflects a seeking of understanding of the disorder as a whole, of the pieces tied together in a meaningful manner. Thereby, grounded theory methodology guided the process of tying together pieces in a meaningful manner, and the development of theoretical models of experience that attempt to captivate the subjective experience of anorexia nervosa. Such grounded theory methods used included: constant comparison, matrixes, theoretical memos and analytical coding.

Lower-order Coding

Data analysis involved moving up from the data to develop theory, and back down to check validity, and was guided by procedures outlined in *Handling Qualitative Data: A practical guide* (Richards, 2005) and *Basics of Qualitative Research: Techniques and procedures for developing grounded theory* (Strauss & Corbin, 1998). The process of data analysis involved determining the perceived relevance of theory, determining the ‘what’ of experience, determining the context of experience, and determining the inter-relations of experiences and how they combine to create a whole.

Based on the information provided on the demographic information sheet and the information disclosed, participants were given attributes, which included; age, gender, length of disorder and years since recovery.

Coding began with line by line, and then section or ‘chunk’ descriptive coding, whereby the descriptive node attributed reflected what was being talked about in that line or ‘chunk’. Through the ongoing process of constant comparison (both within and between subjects) parameters of the descriptive nodes were refined, and topic categories were developed. Questions that guided the coding and refining process included: what is this referring to? Why is this piece of data coded under this node as opposed to another? How does this piece of data belong to this node? How does this node belong to this category as opposed to another? How is this node similar or different to other nodes that exist? The process of coding, refining and constant comparison was further assisted in the creation of matrices that depicted the different nodes.

Organization of Nodes and Categories

A core premise in the research was the need to understand a person and phenomena as a whole, not as fragments, thereby taking into account the whole context of experience. As this is a core premise of a number of existential psychologists and philosophers, the researcher turned to existential psychology for a means by which to organize the pieces of information of context. Heidegger (1962) has developed the concept of worlds of being, which reflected different levels of experience. The first of these worlds of being is the Umwelt, which translates into ‘the world around’ and consists of that which is predetermined, in that it exists even without the individual’s awareness, or interactions (Heidegger, 1962). This includes one’s physical environment, as well as one’s cultural environment. The second world of being is the Mitwelt which translates to “with world”, and involves the interpersonal, interactive and social aspect of being. The third and final world in Heidegger’s (1962) worlds of being is the Eigenwelt which translates to “own world”, and consists of one’s thoughts, feelings and behaviours. A large aspect of an individual’s subjective experience exists in their Eigenwelt. The worlds of being provided a structure in which the many pieces of experience could be organized, and further analysed.

However, as the literature from a number of paradigms has repeatedly noted the importance of the concept of self over the course of the disorder (Bachar, 1998; Bruch, 1979; Button, & Warren, 2002; Levitt, & Hart, 1991; O’dea, 2004; Wilksch, & Wade, 2004; Williams, Power, Millar, & Freeman, 1993), Heidegger’s (1962) worlds of being

has been adapted to reflect the importance of particular processes and the ‘core’ was added. The Core is a reflection of, and determines how an individual will interact, with the three worlds of being. Core consists of three main parts, which are commonly closely related to processes in the Eigenwelt: self, life-meaning and coping. Self is a dynamic reflection or representation of the individual that guides, and is guided by, interactions in the three worlds. Self capture who one is, and how one tends to experience and interact with the three worlds. Life-meaning is the framework used to tie the self and interactions with the three worlds to the future and past. Coping refers to processes used to assist the protection of the core, and interaction with the three worlds. Figure 2 depicts the adapted worlds of being diagrammatically, with the different layers representing the worlds as they stand in relation to the individual experience.

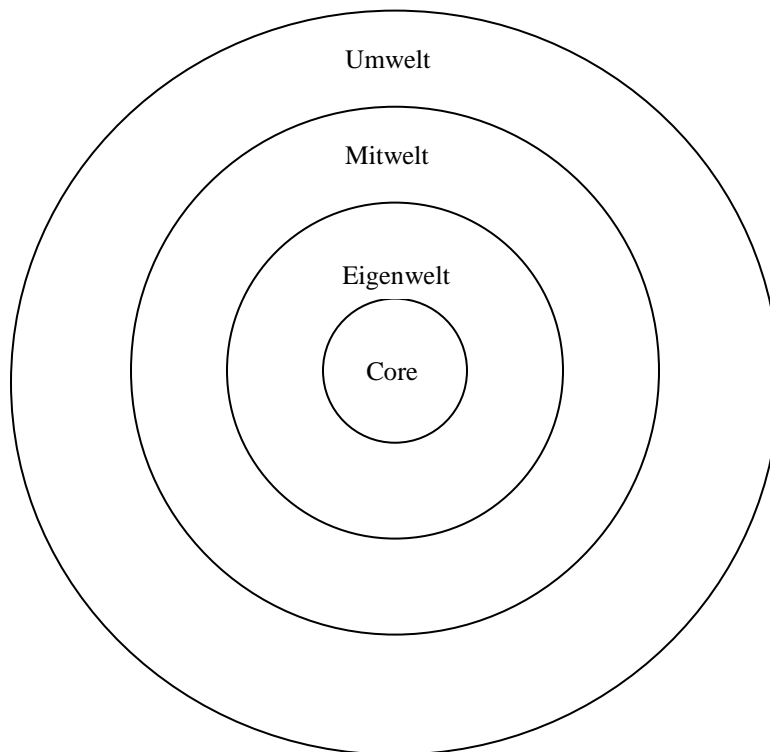


Figure 2: Worlds of Being, adapted by Pegrum from Heidegger

Descriptive nodes and categories were organized, based on their location within the adapted worlds of being. Through the process of constant comparison both within and between subjects, as well as the use of matrices, the context of each node was checked,

rechecked and memos developed for higher level coding. Questions that guided the process of determining context included: where, in relation to the individual, was this experience? Who was involved in this experience and how? Does the experience regularly define or shape interactions with other worlds? What experiences occur together?

Analytical Coding

Through the process of analytical coding, themes emerge, and a picture of the processes involved and how the disorder is experienced as a whole subjective experience developed. The process of analytical coding was assisted by memos, questions, and hypotheses generated throughout the data analysis process. Questions that guided the process included: What is happening here? How and why are different categories and nodes occurring together? How do these processes impact on the individual and in turn the disorder? What does, and does not, this account for? Again, the process of constant comparison, both within and between subjects, was used to assist in the checking, refining and development of models.

Coding Theory or Piece Relevance

Participant responses to theory presented were coded into agree, partially agree or disagree based on the parameters outlined in table five.

Table 5: Participant's responses to pieces

Response	Parameter
Agree	Participant feels the theory/hypothesis is highly relevant to their experience, or are able to describe or explain an experience that reflects the theory/hypothesis being proposed.
Partially agree	Participant feels the theory/hypothesis is somewhat relevant but it is missing something, or that it may sometimes be relevant, but not specifically in the way proposed.
Disagree	Participant does not feel the theory/hypothesis is relevant at all or disagrees with the theory/hypothesis.

The 'why' of the response was then coded using descriptive coding, and through the process of constant comparison, categories were developed. Context and analytical level of coding was encapsulated in the coding associated with the development of the picture of subjective experience of anorexia nervosa.

Reliability and Validity

A number of processes existed within the data gathering and analysis that assisted the establishment of reliability and validity. The process of constant comparison, not only assisted the development and refinement of nodes, categories and themes, but also assisted the development of synchronic reliability. As the process of coding and constant comparison took place over time, codes were constantly being checked and rechecked over a significant length of time, thereby establishing diachronic reliability. The organization of pieces in the adapted worlds of being also assisted the replicability of the study, by providing a structure with which to organize the data.

Measures used to assist internal validity included use of theory as a means of triangulation, constant comparison, and discrepancy analysis. The research design, the process of research and findings from the research were also subject to peer review over the course of the research duration in a number of forms, including presentations at conferences, presentations and discussions with treatment providers, and individual discussion with colleagues. The process of moving up and down from the data throughout the data analysis process served as a means of triangulation within the study. As demonstrated in the following results chapters there is transparency in the establishment of pieces, and working up from the data to establish models.

Chapter 5: Aetiology Results and Discussion

As noted in chapter 2, many have theorized what may lead an individual on the path towards anorexia nervosa. The knowledge and understanding generated by those who have pondered and researched the aetiology of anorexia nervosa appears to capture the experience of those who have recovered from anorexia nervosa, as indicated by participants generally finding pieces of knowledge presented relevant to their experience of onset. However, the path to anorexia nervosa is more complex than that reflected in the pieces of knowledge presented, and similarities of different individuals' journeys to anorexia nervosa become more apparent upon organizing experience based on the adapted worlds of being. But the organization of experience into the worlds of being does not capture how an individual may change over time, or how different experiences interact to lead to the development of anorexia nervosa. Through the process of analytical coding and higher order analysis a model (The Threat, Distress, Alleviation Model) emerged that captures how experiences interact with each other over time to lead to the development of anorexia nervosa. The Threat, Distress, Alleviation Model is congruent with, and captures not only knowledge and understanding in the field, but also the complex subjective experience of participants. The Threat, Distress, Alleviation Model can be used to assist identification of prevention program needs, and implementation of prevention programs.

Confirmation and Clarification of Pre-existing Pieces: Relevance of onset theory to participant experiences

Generally participants agreed (57% of responses) or partially agreed (21% of responses) with the aetiology pieces presented. As indicated in the summary of responses in table 6, there were variances between paradigms in perceived relevance of theory.

Table 6: Summary of Relevance of Aetiology Pieces from Paradigms

Response\Paradigm	Biological	Social-cognitive	Family	Existential	Total
Agree	8 (21%)	33 (63%)	30 (77%)	18 (69%)	89 (57%)
Partial	20 (51%)	6 (12%)	0 (0%)	6 (23%)	32 (21%)
Disagree	11 (28%)	13 (25%)	9 (23%)	2 (8%)	35 (22%)
Total	39	52	39	26	156

Biological

The first of three pieces presented from the biological paradigm encouraged participants to consider the role of genetic vulnerability in the development of their anorexia nervosa. Three participants found this piece particularly relevant to their experience, but varied in the explanation of how they came to find the theory relevant. Two participants reflected on personality traits, such as perfectionism and obsessionality, which they believe they inherited (as indicated by fellow family members also possessing these traits), that contributed to their anorexia nervosa. While the third participant, Beth, reflected on how she felt she was born with anorexia nervosa, as indicated by an early fascination with eating disorders:

I believe that I was born with it. I say that because I was always intrigued whenever I heard stories about people with anorexia or bulimia, and payed close attention to them. I idolized that ideal of anorexia. I thought that, that was so strong. (Beth)

Six participants partially agreed with the role of genetic vulnerability, this tended to take the form of acknowledging the role of the biological, but noting that without the environment also contributing, the disorder may not have developed. While, another participant (Julie) was uncertain of the role of genetic vulnerability, but as both her daughters developed the disorder, she considered it a possibility but also noted it as difficult to separate genetic from environmental influences: “Well I think its true, but it’s very hard to separate from the environment”.

Four participants disagreed with the role of genetic vulnerability. Disagreement with the theory tended to be based on others in the family not having the disorder, or a belief in personal responsibility behind the disorder, as noted by Bree: “I think it’s a load of rubbish. It all boils down to a choice. What choices you make in your life”.

Interestingly the participants’ rationale for their responses to this piece paralleled rationale in the field raised in chapter 2. Family, twin studies and genetic studies are a form of evidence to support the role of genetic vulnerability, and participants’ responses were frequently based upon them conducting their own mini-family-study, in which they would reflect upon their own family in search of evidence. Concerns were noted in chapter 2 as to what is inherited, and how the vulnerability is triggered. Again these concerns were reflected in participants’ experiences with different participants reflecting

on different factors they believed they inherited (perfectionism, obsessionality or the disorder itself). While participants who partially agreed with the theory reflected on triggers and the interaction with the environment in the development of anorexia nervosa.

The second piece from the biological paradigm that participants were asked to consider was the role of puberty as a trigger for the onset of their anorexia nervosa, in particular the role of puberty as an indicator of sexual maturity and becoming an adult. Four participants agreed with this piece, noting how anorexia nervosa was a means of avoiding becoming an adult, and the responsibilities associated with being an adult, as reflected in Bree's words:

I do believe anorexia is a way out of puberty. If an adolescent feels that, or wants to run away from becoming an adult, then definitely anorexia is a way of not having to face that, and the other issue of control. (Bree)

Five participants partially agreed with the role of puberty. Four of whom noted that the weight gain associated with puberty, drew their attention to their weight and made them concerned about their weight, which in turn played a role in the onset of anorexia nervosa. Shelley noted that puberty alone did not contribute to the development of her anorexia nervosa; rather it was the stress of the onset of puberty combined with a lack of support, that played a role in the onset: "Again I feel, if the girls have got someone to speak to about their inner world, those areas can be softened" (Shelley).

Four participants did not feel that puberty contributed to the aetiology of their anorexia nervosa. Two of whom noted that they looked forward to puberty and maturity, while another two reported that they developed anorexia nervosa long after puberty, as reflected in Julie's experience:

I went through puberty when I was 12-13, so by the time I had had my first diet (at 15) I was well and truly through that. So I don't really feel that was involved in my experience. (Julie)

The third piece from the biological paradigm explored the role of dieting as a trigger to the onset of anorexia nervosa, in particular, whether individuals who develop the disorder respond differently to dieting. Only one participant, Annabelle, agreed with this piece, noting that she rapidly lost weight, and quickly lost the sensation of hunger:

Just things [dieting and weight loss] are easier for me to do than what other people find. I have found that, and I'm not sure whether this is for everyone, that

after awhile I just wasn't hungry anymore. That I could get quite a sense of almost like a high out of being starved. (Annabelle)

Nine participants partially agreed with the theory. This generally took the form of noting there is a difference, but placing it more in relation to psychological or environmental factors, such as learnt response, perfectionism, determination, and willpower. Ellie, believed individuals who develop an eating disorder differ from others who diet in the form of level of determination:

I think it just takes a lot of will power. I don't know if that is biological. Even if I wanted to lose weight now, I just don't have the willpower to do it. I don't know if it is biological, but there is definitely something there. I think, just the determination. I had a really strong determination to lose weight which a lot of people don't have, they're like "oh yeah, but I like food more". (Ellie)

Three participants disagreed with the theory for varying reasons. One participant (Fiona) noted that she had been on diets before, and if there was a different biological response to dieting, she would have developed the disorder earlier. Another participant (Mel) disagreed, noting her food restriction was more in relation to control than dieting or a differential response to dieting. Yet another participant (Beth) disagreed, noting her disorder developed based on life choices, not a physiological cause or contributor.

In chapter 2 questions were raised from a consideration of the published literature as to the exact nature of the role of dieting in the aetiology of anorexia nervosa, and whether dieting is an aetiological factor, again, participants' responses reflected these questions.

Social-Cognitive

The first piece presented from the social-cognitive paradigm encouraged participants to consider the role of the media, and what one learns from the media in relation to expected standards of appearance and behaviour, in the onset of anorexia nervosa. Seven participants agreed with the role of social learning in the onset of anorexia nervosa, noting that the media portrayed an ideal, which was perceived as the norm, which in turn created internal high expectations. Beth and Karen reflect on how the media shaped their concept of ideal:

I idolized models, and read magazines. I was just obsessed with clothes, models, and diets, and reading all that I can, and finding out lots. It's like having a degree

in anorexia. That's what I have basically got myself. I think the media definitely had a big influence on me. (Beth)

I thought to grow up beautiful, that you needed to be long and thin, and because of my figure I could never get that. That is why it's important that women understand there are different shapes of women and men, and they are all beautiful. But you do strive to be like the model in the magazines. (Karen)

One participant (Mel), partially agreed with the piece, noting that she was torn between wanting to be attractive based on media messages, and wanting not to be attractive because being unattractive was safe:

Although the strange thing with me was, I started dieting because I was concerned being attractive, as I was a bit overweight. Then when I lost the weight I knew I wasn't attractive, and for me that felt safe, because boys wouldn't be attracted to me. (Mel)

Five participants did not believe media messages played a role in the onset of their anorexia nervosa, as participants either did not focus on the media, were cynical about what the media portrayed, or the media was perceived as not having as much focus on thinness at the time of onset. Bree noted that the media portrays being overweight and underweight as evils; "I still don't think you can just blame the media. The media also talks about people who have gone anorexic, and how they despise it too".

The second piece from the social-cognitive paradigm explored the role of the media and society connecting rewards with thinness and punishment with obesity and being fat. Eleven participants reported they did perceive rewards to be associated with thinness, and this contributed to the onset of their anorexia nervosa. In particular participants associated thinness with success, acceptance, popularity and control, and felt pressure to be thin in order to achieve the rewards. Ellie's words reflect the perceived rewards associated with thinness:

People tend to like people who are thin, and associate it with being in control. It's always so and so has lost control of their life if they put on weight. So probably more, you just want to look like you are good and in control. (Ellie)

Two participants noted that social rewards and punishment did not contribute to the onset of anorexia nervosa, one of which did not feel it was rewarded and the other noted that she was too self focused to notice any social rewards and the other believed being excessively thin is just as frowned upon in society as obesity.

The third piece from the social-cognitive paradigm that participants were asked to consider was the role of messages learnt from peers in the onset of anorexia nervosa. Five participants reported that their peers played a role in the development of anorexia nervosa, which generally involved being in the company of people who would discuss weight and shape, and engage in weight loss behaviours (such as dieting). These interactions elicited the response of jealousy or self-consciousness, which in turn triggered the behaviour of dieting and exercise. Ellie reflects on how her peer group contributed to her eating behaviour:

The group I was in, there was about two or three of us who were all quite sick, and all three of us ended up in hospital at around about the same time. It was just like the group was always on a diet. So you just did it because that is what people did, and the people who weren't on a diet were already thin anyway, so it didn't matter. So I'm surrounded by a group of people where some of them weren't eating anyway, and I wasn't game to eat, because then I thought "oh they would think I'm the fat one. They will think I'm a pig". (Ellie)

Two participants partially agreed with the theory. Lisa noted that she may have been more sensitive to comments on certain topics. While Julie noted that although her peers didn't specifically discuss dieting they did play a role, as she felt bigger than her peers and that increased her desire to lose weight:

Well in my own experience, not many of my friends carried as much weight as I did as a teenager, so the effect on me was to make me want to be their size. We didn't actually talk about dieting or anything. (Julie)

Six participants did not believe peers contributed to the onset of anorexia nervosa, noting they were either detached from their peers or, as Annabelle reflects, her peers were not accepting of dieting:

Well from my point of view, from my experience, that wasn't the case at all. If anything my friends were like "oh don't do that", and they were really worried. I guess, even prior to that there wasn't much talk of dieting or anything. (Annabelle)

The fourth piece from the social-paradigm presented that participants were encouraged to consider, was the role of social comparison in the onset of anorexia nervosa. Ten participants found this piece relevant, noting that they would frequently compare themselves with others, which resulted in a reduced sense self worth. Beth reflects on how social comparison contributed to feelings of inferiority:

I compared myself to everyone, absolutely everyone, whether, it is in a magazine, whether it's at school, anywhere. I felt very inferior because of my size, because of my height, I wasn't as attractive as my friends were. They were skinnier, they were all very pretty. (Beth)

Three participants noted comparison didn't play much of a role in the onset of anorexia nervosa, but more in relation to maintenance of the disorder or depression. Fiona reflects on how, when she was struggling with anorexia nervosa, she would compare herself with others:

I don't know how much this affects you beforehand, but definitely when you're suffering. I was always "I wonder if I'm smaller than her or not." (Fiona)

Family

The first piece from the family paradigm that participants were encouraged to reflect upon was whether their family was focused on food, appearance or achievement, and how this many have contributed to the onset of anorexia nervosa. Eleven participants reported they experienced a focus on food or achievement or both within their family. A focus of achievement took the form of other family members achieving, creating pressure to achieve, and a general expectation of achievement. In relation to food, there was too much food, a health focus on food, or presence of dieting or an eating disorder within the family (as reflected in Lisa's words).

For me it was a cue because it was all around me. Mum was constantly exercising around me and going marathons. I would find laxettes in her draw, and she always had laxatives around the house, and she was also quite fit. My brother was a fitness fanatic, and my sister was an aerobics instructor. There was really no escape from it, it was kind of inevitable. (Lisa)

Two participants (Annabelle and Beth) reported that there was no focus on food or achievement within the family, one of which (Annabelle) noted that the pressure to achieve came from within.

Well that wasn't really my experience. My mum is not really into dieting, and neither is my sister or anything like that. Although I always did really well, I never felt like they were pushing me to that. That was always coming from me, to have to do that. So that's probably not for me. (Annabelle)

The second piece from the family paradigm presented to participants suggested that blurring of roles and boundaries within the family contributes to the onset of

anorexia nervosa. Seven participants reported experiencing a blurring of boundaries with another family member, of which, four noted a blurring of boundaries with their mother, one with their father, two with another immediate relative. Karen's words capture the impact of how her enmeshed relationship with her perfectionistic mother impaired her ability to grow as an individual:

My mum was a perfectionist and she was doing everything she could to make me perfect. I had to grow up their way and there wasn't much gap for me to grow in however I wanted to grow. I wasn't given that space to make my own choices, and make mistakes and say that's ok and follow through. (Karen)

Six participants reported that they did not find the piece relevant as they perceived their family as very supportive, as reflected in Ellie's words: "I don't think I had that problem much, because I've always had a family where mum and dad have always been good to us".

The third piece from the family paradigm that participants were encouraged to discuss was the role of a lack of family communication in the onset of anorexia nervosa. Twelve participants noted that there was a lack of communication within the family, often in relation to honesty, conflict, emotions, affection and problems. Karen reflects on how a lack of family communication, resulted in her turning inwards in a time of crisis:

I was too scared to speak to my mother about changing body and shape, and saying "no, I don't want to change schools any more". I mean, the fear of god was put into me if I didn't obey them. So definitely, I didn't have the communication pathways set up with my parents to deal with a crisis, or a personal crisis, so I had to go inward. I couldn't go to them, and I was the new girl at school, so I had to go inwards. (Karen)

One participant (Ellie) reported that there were no communication problems within her family; hence she did not find this piece relevant to her experiences.

Existential

The first piece from the existential paradigm presented to participants encouraged participants to reflect on the role of life-meaning in the onset of anorexia nervosa, in particular the absence of life-meaning combined with the perception that thinness would bring life-meaning. Six participants noted that they were experiencing difficulties with life-meaning, in the form of either not having had clear life-meaning, or being confused between two or more potential sources for life-meaning. Mel noted that she lacked life

meaning around onset: “I have never had a goal or life-meaning. I know at high school, I never knew what I wanted to do. I had no idea whatsoever.”

Five participants partially agreed with the theory, noting a that lack of life-meaning or confusion around life-meaning in itself didn’t contribute to the onset of the disorder, rather it was this combined with a negative emotional reaction to a lack of life-meaning that contributed to onset. One participant (Fiona) noted that she felt like a failure because she hadn’t developed life-meaning. Another participant (Annabelle) also noted an emotional reaction to life-meaning in the form of fear; she feared developing life-meaning in case it was wrong. Another participant (Amanda) noted that she felt she didn’t have life-meaning despite setting goals, as she never felt a sense of accomplishment or ownership from the achievement.

Two participants (Lisa and Julie) did not find the theory relevant to their experience. Julie noted that there weren’t as many options around the time of onset of her anorexia nervosa available to develop life-meaning, so she did not perceive the development of life-meaning as much of a dilemma as it would be today. While Lisa had established a sense of life-meaning, and would become frustrated with others around her who did not have life-meaning and that made her more passionate about her own life-meaning.

The second piece from the existential paradigm presented to participants suggested that anorexia nervosa develops as a means of coping, particularly coping with existential distress. Twelve participants noted that onset of anorexia nervosa occurred at significant points in life, and how the anorexia nervosa served as a coping mechanism, by providing a sense of control, distraction and a decrease in responsibility, as reflected in Amanda’s words:

I think eating disorders definitely are a coping mechanism. Some people take drugs, some people drink alcohol. I don’t eat, and over exercise. I guess when I started doing a lot more exercise and eating less, I did feel like I had control over what I was doing, so and it felt really good. (Amanda)

One participant (Annabelle) partially agreed, noting that perfectionism plays a role in one’s reaction to life-meaning and one’s ability to cope.

Summary of Theory Relevance

Based on participants responses it is evident that theory and hypotheses that exist in the field, and discussed in chapter 2, are relevant to their experience of anorexia nervosa. In particular, participants found social-cognitive, family and existential experiences contributed to the onset of their anorexia nervosa. Participants appeared reluctant to note the role of biological processes behind their disorder, largely due to a reflection of the complexity of the disorder and other processes that contributed to onset of anorexia nervosa. It is interesting to note that concerns about particular theory or hypotheses raised in the field, were also raised by participants, and evidence to support a theory or hypothesis in the field, were also noted by participants. Participants throughout this stage of the interview would frequently note how experiences did not occur in isolation, and the importance of looking at the context of other factors.

Organization of Aetiology Pieces: Theory and Experience

The previous section captures participants' experience of anorexia nervosa in relation to specific areas, which are highlighted by different paradigms, yet the subjective experience of anorexia nervosa includes and stems beyond these areas. As noted in chapter 4, participants' subjective experience of anorexia nervosa was organized into an adapted worlds of being, consisting of the Umwelt, Mitwelt, Eigenwelt and Core. Within the different worlds, there were categories and subcategories of experience, that are summarised in the table across the page, allowing for identification individual experience, yet enabling view of the bigger picture.

Table 7: Summary of Onset Experiences in Different Worlds of Being

World of Being	Number of Participants		World of Being	Number of Participants	
	Total	Individual		Total	Individual
Umwelt			Eigenwelt		
<i>Disconnection</i>	12		<i>Biological</i>	15	
Transition		9	Build		6
Conflict		4	Predisposition		12
Death		2	Puberty		8
<i>Pressure</i>		9	<i>Emotions</i>	15	
Family		9	Depression		11
Societal		4	Anxiety		6
<i>Appearance</i>	13		Other		5
Family		7	<i>Behaviour</i>	11	
Societal		8	Diet		9
Mitwelt			Activity		7
<i>Disconnection</i>	13		<i>Cognition</i>	15	
Family		13	Appearance		14
Peers		9	Pressure		7
<i>Pressure</i>	9		Confusion		5
Family		6	Control		10
Societal		4	Core		
<i>Appearance</i>	9		<i>Self</i>	14	
Family		4	Worth		12
Peers		5	Identity		7
Others		5	<i>Life-Meaning</i>	13	
<i>Invasion</i>	8		<i>Coping</i>	13	
Blurred role		7			
Harassment/abuse		3			
Control		4			

Umwelt

The Umwelt consists of the environment, including the physical and cultural. For all of the fifteen participants, experiences in their Umwelt around the onset of anorexia nervosa tended to increase levels of distress, or drew attention to appearance. These experiences fell into three main categories (disconnection, pressure and appearance), each of which contained subcategories of experiences.

Disconnection

Disconnection refers to events experienced by individuals that restricted their ability to form lasting connections with the world around them. Disconnection was experienced by 12 participants, and involved transition, conflict or death.

Transition involves a change in the individual's environment, and was experienced around onset by nine participants. As anorexia nervosa is a disorder that tends to begin in adolescence, transition for a number of participants involved moving from primary school to high school, or high school to university. A change in school tended to create distress as the individual was required to adapt to different peers, roles and demands. Some participants, as well as a school change, also experienced a complete environment change of moving house and locality, which added to their level of distress. Beth was one such participant who noted the distressed created by moving house and school; "I'd changed schools at that time, and we'd moved house and I was really unhappy about that, and changing schools was hard."

Another experience encountered by four participants that restricted their ability to connect with the surrounding world by distracting and distressing them, was conflict. Conflict refers to the presence of a state of disharmony between two or more parties in the individual's environment, generally within the individual's family, and would vary on a continuum from mild verbal conflict through to domestic violence. Lisa's words capture the experience of the distress created by conflict:

The doctor asked me why I wasn't eating, and of course with my parents sitting there I wasn't going to say because my house is very violent and I'm not happy, and everyone's fighting all the time. (Lisa)

Death of a family member or close friend can also disrupt connection to Umwelt, as an individual may find it difficult to connect with the world around them while engaging in their own internal grief process. Both Ellie and Annabelle experienced death of someone close to them around the onset of anorexia nervosa. Annabelle's words capture how before and around the death of her father there was little interaction with the world or those in the world; "When my dad was sick, everyone kept to themselves, and even after he died there wasn't really any much talk about what had happened".

Pressure

Pressure refers to events in an individual's environment (society, peers or family) that play a role in creating expectations to achieve or play a particular role. Pressure in Umwelt was an experience shared by nine participants. At the level of family, pressure tended to take the form of other family members achieving, which established a standard that the participant felt they needed to meet. Ellie's words reflect how she struggled with the pressure created in her Umwelt by the achievements of her family:

My brothers and sisters were very gifted, and I often felt I wasn't as gifted as they were. I wouldn't say it was my families fault, they just were very good, and I often used to think "I wish I was as good as them". (Ellie)

Societal pressure, which was conveyed through the media, created expectations that an individual needs to play a particular role, or achieve a particular standard. This norm is often unrealistic, and sets many people up for disappointment and anxiety. Eight participants noted the role of the media creating pressure on their journey towards anorexia nervosa. Lisa's words capture the process media creating pressure and its impact:

The media plays this incredible role (in my opinion) in building up expectations of how you're meant to be in personal relationships, and how families are meant to function. Not all families are like that, and that can lead to disappointment and anxiety. (Lisa)

Appearance

Appearance refers to aspects of the Umwelt that convey messages regarding standards of appearance, or experiences that make an individual conscious of their own appearance. Thirteen participants felt they received some messages from their Umwelt regarding appearance, although it took many different forms, and tended to occur at the family and societal level.

Appearance within the family involved the conveying of messages regarding the desirable body size and shape (generally that being overweight is negative, and thinness is desired), and how to achieve it (through dieting, exercise, eating disorders or surgery). Appearance took a number of forms, generally on a continuum, with at one end of the continuum the presence of a negative attitude towards a larger body size, and at the other end, the use of extreme means to alter body shape (presence of eating disorder or

surgery). The messages created from these experiences in the Umwelt then became ingrained, and were used by participants when judging their own body. This in turn created confusion anxiety for participants particularly around puberty, as pubertal body changes conflicted with family messages. Karen, words reflect the confusion created by her mother's actions:

Something that happened to me around this time too, was my mother decided to have a bust reduction. So here I am with my bust is growing and growing, and hers is getting smaller, and I'm genetically made like her. That was a little bit confusing. (Karen)

At the societal level eleven participants noted the role societal messages (mainly conveyed through the media) in onset, in particular these messages conveyed not only what appearance is normal, but also what is desirable. Many participants noted that fashion and models were the main source of appearance related messages, which were conveyed through magazines and television. Participants then used these messages to judge themselves, which created dissatisfaction with their own appearance, as they felt they looked different to the norm or the ideal.

Mitwelt

Mitwelt is the world of social interactions. All participants experienced difficulties in Mitwelt, largely in relation to disconnection, appearance and pressure. Mitwelt in onset is similar to Umwelt in onset, in the form of the Mitwelt being dangerous place where the individual struggles to meet expectations, keep up appearances, and make connections with others.

Disconnection

Disconnection was an experience encountered by 13 participants and involved a difficulty in interacting with others within one's family, peers or both. Disconnection manifested in the form of poor communication, or as a sense of being detached from others (knowing people but not feeling close).

In relation to the family, disconnection tended to take the form of poor communication. Yet the level of poor communication would vary on a continuum, from poor communication across all areas, to poor communication in specific areas (most commonly conflict and emotions). Lisa reflects on her experience of poor communication:

There was no real form of communication. There wasn't a situation where, and I think I'm speaking quite accurately on behalf of my brother and sister too, there wasn't really a feeling that we could go to mum or dad, and disclose anything really personal. (Lisa)

At the level of peers disconnection tended to manifest in feelings of detachment, with participants feeling they were friends with many, but had few strong connections, which is reflected in the words of Kylie:

I was doing really well at school, and having friends in all groups, whether that was the really nerdy groups or the really trendy groups, that no one would be a part of. I was having friends across the sections, but not feeling like I belonged to any particular set. (Kylie)

Disconnection at the peer level tended to create self-consciousness and self-doubt, as the individual would question why they don't fit into the group. Disconnection impairs an individual's ability to communicate their needs, and also leads to the individual feeling like they do not have anyone to turn to in a crisis, resulting in the individual turning inwards and experiencing a yearning for attention or a need to be heard. Lisa's words capture the impact of disconnection:

I also had this really big need to be heard, but not having the right forum. I guess in a way it's kind of ironic, you stop putting things in your mouth because you want to say things out of it. (Lisa)

Pressure

Pressure refers to the creation of expectations of the individual through interactions. Mitwelt pressure is different from Umwelt pressure, as it involves an interaction with another being, as opposed to an event in the environment. However, those nine participants who experienced pressure in Umwelt, also experienced pressure in Mitwelt. For the majority of the participants the interactions that conveyed expectations were with parental figures, even though the expectation may have been created by the actions of siblings. Mel reflects on interactions she would have at her school that created pressure:

It was like all through primary school, as you went into a new grade, and the teacher would see your name; "You're Patsy's sister. She was really good". The teachers knew she did really well, so it was like I'm her sister, and I got to do really well too. (Mel)

Appearance

Appearance refers to messages received from varying interactions whereby a message is conveyed about appearance, weight or dieting. Mitwelt appearance is different from Umwelt appearance as it involves an interaction, however, the product tends to be similar in the form of an establishment of a norm or ideal, and increased self-consciousness. Appearance messages primarily came from family and peers, although other sources were noted (such as boyfriends and doctors).

At the level of family, the form interactions conveying appearance messages tended take varied on a continuum from well-intended statements that conveyed a particular attitude about the body and weight, to specific derogatory comments about weight and body. Four participants noted specific family interactions that contributed to shaping their awareness of and attitudes their body.

Five participants noted appearance messages at the level of peer interactions. These tended to take the form of frequent or regular discussions about appearance or dieting. The impact of these messages was increased self-consciousness, body dissatisfaction and desire to change. However, causality is difficult to determine, in that an individual on the path to anorexia may be particularly conscious of such messages, or may have specifically chosen that group of peers.

While five participants noted they received appearance messages from sources other than family or peers, including; doctors, boyfriends, strangers, teachers and coaches. Although the origin of the message was different, the impact was the same; increased self-consciousness, body dissatisfaction and a desire to change. Karen reflects on how the comments of others triggered change:

I remember in the course of one week two people had commented on my weight. I was around 14, maybe 15. I was an adult and a child, and so over the next few weeks I remember thinking I should just cut some fats out of my diet and things like that. Then I started losing weight, and people started commenting on that.
(Karen)

Invasion

Invasion was experienced by eight participants, and refers to incidents whereby the individual experienced an intrusion into their realm of being. Invasion took the form of blurred roles, control or abuse or harassment.

Seven participants described having blurred roles in their family, commonly in relation to their mother, but also in relation to their father and siblings. Blurring of boundaries became problematic as it created emotional distress, confusion, and blocked an avenue for coping.

Four participants noted they perceived their families as controlling and rigid, which shaped the manifestation of the disorder; as food and body size emerged as something that they could control, and as a means by which they could communicate a dislike of the control. Beth reflects on her experience of her father being controlling:

My dad is a very controlling, very straight down the line, and a very hard man. I think I felt very pressured by him to always get an A plus, to always score the most goals, to always be the best. I think I was very controlled by what he wanted. (Beth)

Three participants noted they experienced invasion in the form of abuse or harassment. The experience of abuse or harassment changed the way the participants perceived themselves and the world, such changes included: creation of a desire to disappear or punish oneself, and altered perception of one's body.

Eigenwelt

The next world of experience is the *Eigenwelt*, which is the private internal world, and within which there were four main categories of experience: biological, emotions, cognition, and behaviour. In general participants' experiences in *Eigenwelt* around onset were of increasing distress, self-consciousness, focus on achievement and appearance. Experiences in the *Eigenwelt* were also reflective of, and parallel the experiences in the other worlds.

Biological

Biological refers to biologically based experiences, and includes genetic predisposition, puberty and physical build. How the individual reacts to these experiences varied based on the interactions with other factors, both within and outside of the *Eigenwelt*. All participants noted there was a biological factor that played a role in the development of anorexia nervosa.

Twelve participants believed they possessed some form of a predisposing characteristic that placed them at higher risk of developing anorexia nervosa, and the nature of the perceived predisposition would vary from participant to participant. For

some, the disorder in itself was perceived to be inherited, similar to the hypothesized inheritance of some addictions. While for others, distress was created by incongruence between their sensitive nature (which was perceived as inherited) and their harsh environment. Perfectionism was the main predisposing characteristic identified, and was noted by eight participants. The experience of having a predisposition to anorexia nervosa was noted and captured by participant's words earlier in this chapter in relation to biological theory.

At the time of puberty the physical body goes through major changes at numerous levels, the impact of these primary changes are often compounded by secondary changes represented in terms of a change of roles and responsibility. The physical changes of puberty and the secondary changes created distress around the time of onset for eight participants. For six of those eight participants, the onset of puberty and the associated weight gain drew their attention to their body, and their weight. The prospect of weight gain was distressing because of the interpretation placed on the weight gain, which tended to be that weight gain creates a barrier to success or a barrier to social interactions.

However, puberty and the meaning attributed to the weight associated with puberty, was not the only cause of distress in relation to puberty. Five participants were concerned not by puberty itself, but by what it symbolized in terms of becoming an adult, and the responsibility and sexuality that comes with such a title.

Six participants noted their build prior to onset, and as a child, played a role in the onset of anorexia nervosa, in particular participants noted that they felt larger than other children their age. Karen reflects on her thoughts about her size around onset: "I wanted to be thinner than I was when I realized that I was too fat, and people realized that I was a bit too fat". An individual's larger build affects the individual in a number of ways, including the individual may perceive their build as having a negative impact on their interactions in the Mitwelt, hence their desire to change their build is increased. The second means in which a larger build affects an individual, is that by being a larger size one's attention may be drawn to one's body, making one highly body conscious, and sensitive.

All the participants who noted they were a larger size prior to onset of the disorder noted that initial changes made to diet and in turn body, were met with rewards.

These rewards not only served as a means of increasing the desire to take changes to another level, but reduced the likelihood of the disorder being identified at an early stage, as noted by Fiona: “I was always really big, so people didn’t really worry about it [weight loss] until it got to a certain point, and people were like ‘ah, now she’s a bit too thin’”.

Emotions

The experience of intense emotions around onset was common to all participants, in particular feelings of depression, anxiety, shame or guilt. Lisa reflects on her experience of emotions around onset; “My experience initially, as young person at the age it began, was I was feeling really depressed (extraordinarily depressed), so initially it was a distraction”.

Those experiencing depression also tended to experience negative self talk and cognitions. Fiona, who experienced depression, noted her tendency to think negatively; “Negative self thoughts came a very easily to me, and for me it was about that you didn’t deserve to have nourishment. You didn’t deserve to have good things.”

While those experiencing anxiety, tended to experience anxiety in relation to expectations of life and relationships. Bree talks about the fear created by having to make life decisions:

They are fearful of making their own life-meaning. They are fearful of the consequences that are going to play out, like whether they are going to choose right or wrong. (Bree)

Behaviour

A number of participants engaged in actions and activities prior to onset of anorexia nervosa that they noted may have contributed to the development of the disorder. One of the most common behaviours participants engaged in prior to the onset of anorexia nervosa was dieting, with nine participants reporting they dieted prior to onset. Reasons behind dieting would vary, and included: family members also being on diets, wanting to improve athletic performance, wanting to lose weight and wanting to be healthier. For example Mel reflects why she started dieting; “I remember I started to diet because I was a bit on the chubby side”.

While, seven participants noted they engaged in some form of activity that made them conscious of their weight or appearance. These activities included; ballet, running,

exercise or modelling. Isabella and Shelley reflect on how being engaged in specific activities may have acted as a trigger:

I think the running, possibly had a bit of an impact. I started getting a bit more serious in year seven, and I got full coaching. It centred around being a good sports person, but also what you look like and how you perform. I thought that to be a good runner you had to be quite thin. (Isabella)

My mum started me in ballet, and I was doing very well at it. Then it became a weight issue because of how I looked in the costumes. (Shelley)

Yet a loss of enjoyable activities can also act as a trigger, as it removes a source of social activity, mastery and self worth. Karen experienced a loss of activities, and social interactions when moving schools, and noted the importance of these activities:

I changed schools. I was on a hockey team at one and loving it, and then I went to a school that didn't have hockey. I was also doing really well at French, and then I was learning Italian, and there is no French in the school. So I lost a couple of things that I was good at, and really liked. I think it's really important, especially for young women, to be involved in something that they really like. (Karen)

Cognition

All participants reflected on particular thought processes that contributed to the aetiology of anorexia nervosa, which fell into four interrelating categories of appearance, pressure, confusion and control.

Appearance cognitions took a number of forms, and tended to manifest in the participant being highly conscious of their weight and appearance, as well as placing a high value on appearing a certain way (such as, associating success with a particular weight). The cognitive process commonly associated with self-consciousness was social comparison, with only one participant engaging in social comparison not noting some form of self-consciousness. Ellie compared herself to her mother, who had recently reduced her size, resulting in her feeling large and creating a desire to change her body:

At about the same time [as onset] my mum lost a heap of weight, and she went from being like a size 16 to a size 6. Then I thought I was the heifer of the family, and wanted to do something about it. (Ellie)

Ten participants around onset experienced cognitions that created a sense of pressure to achieve or play a particular role. These thoughts tended to take the form of setting high internal expectations, resulting in the individual constantly striving to

achieve the expectations. Upon failing to reach these expectations the individual would engage in self criticism. Amanda reflects on how even upon achieving top marks, she felt she could have done better:

If I had a test, and I would get 99%, I would be like “what happened to that 1%?” Even if I got 100%, it was like “I could’ve done this better”. I’d never come out with that feeling of satisfaction. (Amanda)

Five participants described being highly confused or “lost” around the onset of the disorder, which was characterized by having contradictory thoughts, and feeling torn. For example Lisa was torn between wanting to look more attractive, and also having a feminist framework:

I had this like concept in my head that I would have a higher chance of being successful if I was thin. Yet again, I had this contradiction in my adolescent brain trying to give myself a feminist kind of framework, thinking obviously that that’s just crap and you can be great no matter what you look like. I was like why am I worried about being thin, when really I’m a feminist. Teenage confusion. (Lisa)

Control at the level of Eigenwelt reflects an individual’s perceived sense of control, and thoughts about the level of control they have over their life. Ten participants described having a battle with control around the onset of the disorder, which tended to take the form of the perception that they were not in their control of their life, and a desire for more control over their life. Shelley reflects on the lack of control in her life, and how she turned to eating for a sense of control:

The only thing in my whole life I thought I could control was the fridge door, a set of scales, what I saw in the mirror, and when I went to that toilet. So for me that was a powerful thing that there was that I could do. (Shelley)

Core

At the level of Core all participants around onset experienced difficulties, as they struggled to discover their own identity, sense of meaning, and ways of coping and interacting with the worlds. Difficulties at Core created difficulties across all worlds, and in a number of aspects of participants’ lives.

Self

Sense of self and self worth was a significant issue around onset for fourteen participants, and was characterized by difficulties defining one’s identity, and having a very negative opinion of one’s self. Problems with self resulted in inconsistent

interactions, negative self talk, increased self consciousness, withdrawal and people pleasing. Shelley's words capture how her difficulties with her sense of self affected her interactions:

I was never a friend to myself. I was happier to please others, and betray my own self. I had no inkling of any spirituality, or any meaning to life. I was a very compassionate person, had a lot of empathy for others, but I had none for myself. I was continually belittling and betraying my soul. (Shelley)

Life-meaning

Thirteen participants around onset struggled with life-meaning. One form this struggle would take was an absence of life-meaning, which involved not knowing what one wanted to do with one's life, and uncertainty surrounding sources of enjoyment or sources of purpose. It was characterized by a sense of feeling "lost" or "drifting".

Another form, in which the struggle for life-meaning took place, was confusion between two or more sources of life-meaning, which may be internally or externally generated. It was typified by a sense of being torn between the demands of the different sources of life-meaning. Karen's words reflect her thoughts and confusion around life-meaning:

I didn't really know what I wanted to do or what area in life I was going towards. I didn't really have a passion. Maybe nursing, or teaching, but it wasn't really grabbing me. And my parents didn't really want me to go to university. They just thought you could get a good job after a leaving certificate or something, and something deep inside me didn't sit with that. (Karen)

Coping

Fourteen participants around the onset of anorexia nervosa noted they felt they were struggling to cope, and had few coping mechanisms. This was combined with the fact they were facing a number of stressors, and were seeking a means to cope with these stressors. Bree's words capture the distress experienced around onset, and the desperation to find a way to cope, even if it is running away:

I guess as a woman, when you're becoming a woman, you have got a lot of issues to face in your life. You're facing responsibility. You're facing your career, what you are going to do with you life and how it is all going to work out. It can be very scary. In some ways I can understand the high suicide rate amongst adolescents, because it mustn't only be me that struggled. That [anorexia nervosa] was my way of running away from all that. (Bree)

Summary of the Worlds of Experience

Through the process of data analysis, and as indicated in the results is that there is a wide range of ‘pieces’ of experience that were experienced by participants that contributed to the onset of anorexia nervosa. Despite the variety of pieces, there appeared to be similarities in how the different worlds were experienced by participants. Participants experiences in the Umwelt and Mitwelt around onset tended invoke distress, create a sense of disconnection, and create pressure to play a particular role, achieve a particular standard, or appear a certain way. Participants’ experiences at the world of Eigenwelt tended to parallel experiences of Mitwelt and Umwelt, and were characterized by thoughts around achievement of expectations and appearance, and engaging in activities that may bring attention to or trigger these thoughts. This combined with elements of the individual’s biology to create distress, confusion and a desire for control. Confusion and distress was also evident at the level of Core, as participants were struggling to identify who they were, what they wanted to do with their life, and how to cope with what they were experiencing. Although the pieces of experience are organized, and similarities at the level of the different worlds emerged, the knowledge is still fragmented in that it consists of pieces experienced at different worlds of being, and there is little reflection of how the worlds interact or change over time to move an individual towards anorexia nervosa.

Meaningfully Tying Pieces Together: Threat, Distress, Alleviation

Model

Through the processes noted in chapter 4, in particular, the work of Heidegger (1962), the pieces identified were tied together and the Threat, Distress, Alleviation Model (illustrated in table 8) was developed to capture the complex subjective experience of anorexia nervosa. According to the Threat, Distress, Alleviation Model around onset of anorexia nervosa the individual is experiencing a high level of distress which they are struggling to cope with. The high level of distress stems largely from the individual’s perceived vulnerability to a threat (failure, rejection or annihilation). The perceived vulnerability is established through both the environment (presence of danger or ideal), and internal processes (feelings of inadequacy). In the face of the distress created from

the perceived vulnerability to a threat the individual seeks any means possible to reduce vulnerability and distress. Initial changes that in turn led to anorexia nervosa, reflect attempts to alleviate distress made based on messages conveyed in society. Although the Threat, Distress, Alleviation Model initially appears simplistic, through the exploration of the sublevels of experience and reflection of participant's experiences, the complexity of the experience of anorexia nervosa emerges.

Table 8: Threat, Distress, Alleviation Model of Anorexia Nervosa

Manifestation of Anorexia	Experience
<i>Distress</i>	Intense emotions <ul style="list-style-type: none"> - Depression, anxiety, guilt or shame Detachment Confusion
<i>Threats as Sources of Distress</i>	
Threat of Failure	Perfectionist Presence of ideal in environment <ul style="list-style-type: none"> - Achievement in the family - Ideal in the media
Threat of rejection	Expectation of others Presence of rejection in environment Disconnection <ul style="list-style-type: none"> - From family or friends
Threat of annihilation	People pleasing or withdrawal External forces <ul style="list-style-type: none"> - Sexual abuse - Harassment - Blurred boundaries Internal <ul style="list-style-type: none"> - Emotions
<i>Vulnerability</i>	
Environmental factors	Presence of ideal in the environment <ul style="list-style-type: none"> - Achievement of family members - Ideal women presented in the media Presence of danger in the environment <ul style="list-style-type: none"> - Experience of failure - Experience of rejection - Experience of abuse
Internal Feelings of Inadequacy	Lack of self esteem <ul style="list-style-type: none"> - Identity - Worth Lack of life-meaning Biological predisposition <ul style="list-style-type: none"> - Possession of a characteristic or appearance creating vulnerability
<i>Impaired ability to cope</i>	
Internal	Lack of insight Lack of skills
External	Disconnection from others
<i>Alleviation of distress</i>	
	Family <ul style="list-style-type: none"> - Family members body change - Diet or eating disorders within the family Friends <ul style="list-style-type: none"> - Dieting within peer group Societal <ul style="list-style-type: none"> - Linking being thin with positive qualities

Distress

The experience of all participants around the onset of anorexia nervosa was of distress, yet how the distress manifested and was experienced by participants varied for each participant, but generally took the form of intense emotions, detachment or confusion.

Depression and anxiety were common experiences for participants around onset, but anger, guilt and shame were also noted as emotions that created distress. Mel's words capture the distress she remembers experiencing around onset:

It was like everything was hitting me at once, because this was my first year at high school too. I remember that by the end of that first year in those school holidays, I felt something was wrong because I didn't feel happy about things that I normally would. (Mel)

Depression, for many participants, including Mel, was characterized by a general feeling of being down or blue, and for some participants there was no apparent trigger for these feelings. Participants who tended to feel depressed also tended to engaged in negative self talk. While, anxiety for participants was characterized by general feelings of tension or being on edge, with participants often not knowing why exactly they felt on edge. Participants' experience of these general feelings of tension tended to intensify in interpersonal situations.

Although a number of participants were able to identify and describe specific emotions that they were experiencing around onset, others participants describe being distressed around onset, but due to the intensity of their emotions they became detached from them. While other participants described distress in the form of a sense of confusion or being "lost".

Threats as Sources of Distress

Psychological pain and distress, is at the heart of the manifestation of many psychological disorders. What makes the distress manifest as anorexia nervosa, is how the distress was created, the individual's resources to cope, and what the individual perceived as a means of alleviating that distress. Distress, for participants, stemmed largely from feeling vulnerable to a threat. There were three main threats that emerged from participants' recollection of their experiences: threat of failure, threat of rejection, and threat of annihilation.

Threat of Failure

Failure entails not achieving a desired outcome or result, and was a threat that all participants actually experienced or perceived as something to which they were vulnerable to. The vulnerability to and the impact of the threat of failure, was dependant on two factors: the establishment of a desired result or creation of an expectation, and the perceived reaction to actual or potential failure.

I have to be perfect all the time and then people will love me, and then that drives your goals of trying to achieve really highly and be perfect, and that could actually lead you to having an eating disorder. (Annabelle)

I didn't want anyone to think I was a failure, and that I had this problem. I couldn't let them know that. I couldn't be a failure. I had to be perfect otherwise no one would like you. (Karen)

As evident in the experience of Annabelle and Karen, the expectation participants tended to create for themselves was perfection and anything less than perfection was perceived as a failure. Perfection is an outcome that is impossible to consistently achieve, and thereby significantly increasing the individual's risk of failure and creating distress. The tendency to expect high standard or perfection appeared to be established through inter-related processes both within the individual (such as perfectionist personality traits) and the environment (such as presence of the ideal).

Also evident in the words of Annabelle and Karen, but also noted by other participants, is that the perceived consequence of failure is rejection. Hence, the threat of failure is also closely tied to the second threat which participants perceived themselves as vulnerable to: rejection.

Threat of Rejection

The next main threat creating distress for participants was the threat of rejection, be it from family, friends or general society. Rejection refers to the process in which the individual is dismissed or discarded or abandoned by those around them. Participants often tied rejection to appearance, in that participants tended to perceive that other people would not like them if they did not appear or act a particular way (often the ideal).

Rejection, or threat of rejection, was particularly distressing for participants as the majority of them were struggling with their sense of self worth and identity, and any form of rejection would confirm negative self talk and further reduce self worth. For ten

participants the experience of rejection, or the threat of rejection, co-occurred with the threat of failure. Hence, these participants were in a state of distress because they constantly felt that they were at risk of losing those around them, which would thereby confirm their lack of worth.

In response to the threat of rejection, the individual may withdraw or keep people at a distance, thereby reducing the opportunity for rejection. Alternatively the individual may sacrifice their own needs to appease others, also known as people-pleasing. Both of these processes are captured by the words of Shelley:

I had a fear of a lot of things. I never allowed any one close in my life. So, I was very protective of who I let in from a very young age, I didn't let people in or got close to anybody ... I was never a friend to myself. I was happier to please others, and betray my own self. If you are a people-pleaser you think you will be accepted more if you lose weight. (Shelley)

Both withdrawal and people-pleasing appeared to be good short-term solutions for participants, but over-reliance on either created further distress as it resulted in a loss of self and self worth.

Threat of Annihilation

Annihilation refers to when the individual feels as if their world of being is being invaded by an external force through the action of others (such as through abuse or blurring of roles), or consumed by internal experiences (such as emotions or racing thoughts). The experiences of Lisa and Annabelle reflect the threat of annihilation created by an external force in different ways.

If someone's experiencing sexual abuse from a family member or someone close to them once they hit puberty obviously it makes it more difficult. They would see themselves as "oh my god I'm a more visible target." (Lisa)

For me, I feel it's hard to talk to her [my mother] about my feelings, because when I do, she takes them on. For example, if I was upset, she would get really, really upset as well, but not really thinking about me. Like, it becomes her problem then, and 'oh it's a big deal'. So then, then I feel like I not only have to cope with my own feelings, but then she is getting upset and it makes it worse. So I think maybe that sort of played a bit of a part as to why I just didn't [communicate], and why I used my eating instead to try and communicate things. (Annabelle)

Lisa's experience reflects the threat of annihilation involving an attack on her being, in the form of sexual abuse, while, Annabelle's experience reflects the threat of annihilation

in the form her world of being, being consumed by another persons experience. The experience of abuse or harassment in itself was distressing for participants, yet this distress was compounded by a fear that it would happen again. While the experience of one's being becoming consumed by another created distress because it would amplify any difficulties or crisis being experienced, and also reduces the space for development of self and mastery. In response to both these external forms of annihilation participants tended to withdraw out of fear that the experience would reoccur, which in turn often reduced their resources for coping problems or a crisis.

The threat of annihilation at the internal level involved the individual becoming overwhelmed by their emotions or thoughts.

I developed huge melancholy and sadness, and I was unaware of the inner world. So externally I approached everything with a lot of optimism, which attracted a lot of people into my world, but my real world within was always crying. I was very scrambled with my emotions, because I was unaware of what the feelings within was telling me. (Shelley)

As reflected in Shelley's experience, emotions can present with such intensity that the individual feels that their internal world of being is becoming consumed by, lost or "scrambled" with emotions.

Vulnerability

The previous section explored what threats created distress, however a threat is unlikely to cause distress if one does not feel vulnerable to it. There are two main channels by which a sense of vulnerability was created for the participants: the external environment and internal feelings of inadequacy.

External Environment

The establishment of a sense of vulnerability to a threat through the external environment occurred through two main means:

- 1) Presence of the threat within the environment, providing evidence of a dangerous or threatening world, or
- 2) An 'ideal' environment creating a situation where the individual may feel at increased risk of the threat, as they are different to the ideal.

Vulnerability to the threat failure and rejection was generally established through both a dangerous environment and presence of the ideal. As noted earlier, the threat of

failure contained two components: the setting of expectations, and the perceived reaction to the failure. In an environment where an ideal is significantly present, it is easy for the individual to perceive the ideal as the norm, and anything less as failure.

My dad is a perfectionist and he does everything well, and my brother is just good at things, and my mum was successful when she was younger as well. I think being successful in my family was just there, as everyone is, and so you are always trying to compete with that. (Amanda)

I think that not knowing what I wanted to do, and there being such a big emphasis on, “you must know what you want to do”, in my family. I had two older brothers who from very early on knew exactly what they wanted to do, and they were doing it. So not knowing what I wanted to do left you in this place that was very uncertain, and you did feel like a failure. (Fiona)

As reflected in the experiences of Amanda and Fiona, their family environment consisted of the ideal of achievement and direction. Thus setting an expectation through which, by not being met, the individual felt like a failure. However, it is not just the family that plays a role in setting the ideal expectation, the media also plays a role, as noted by Lisa and Beth:

We have lots of standards of how women and men are supposed to look at the various stages of life. There is a stereotype for every single year [of your] life basically for how healthy and radiant and together you should look. (Lisa)

I think the media definitely had a big influence on me. Also I guess because there is society's norms of you're big or you're little. I was always told I was big, because I have a big family and I'm 6'2". (Beth)

The second aspect of failure that creates distress is the consequences that arise from it, and one's environment can provide examples of how failure is experienced. For many participants, including Nicole, it is through the reaction to failure that the threat of failure and the threat of rejection become tied. Nicole felt she was constantly walking on eggshells, as if she failed in her mother's eyes, she would be rejected in the form of “the silent treatment”. Thereby sense of vulnerability was established through evidence of danger existing in the environment.

Nicole was not alone in receiving messages from her environment that tied the two threats together, many other participants' observed similar messages of rejection, but from the media. As Lisa notes; “There is also the in the media an incredible fascination

with people being sick and dropping the bundle. It's like, the haves and have-nots". The way the media scrutinizes and attacks peoples' troubles, conveys the message that if an individual does not meet a certain expectation or norm they will be attacked, which is a form of rejection.

While establishment in the external environment of a vulnerability to failure and rejection consisted of both a threatening environment and the presence of an ideal, the establishment of vulnerability to the threat of annihilation was primarily developed through the existence of evidence. Hence, participants had already experienced the threat, and feared it would occur again. The fear created by the presence of the threat in the environment is reflected in Mel's reflection on the harassment she received from males as a youth.

I felt like these guys were wanting me to be their girlfriend, or wanting me to do this or that. I knew at the time I was 13, and too young and that was on my side, that that would be my excuse, but I thought, what will happen when I'm 17 or 18, and I'm not too young? Am I going to be forced out of peer pressure to go along with this sort of thing? I was scared. (Mel)

Inferred Feelings of Inadequacy

Feelings of inadequacy involved feeling that one isn't 'good enough' or 'as good as' others, and was an experience shared by all participants. A number of processes and experiences contributed to an individual's feelings of inadequacy; however the main contributors were low self esteem (in the form of lack of identity or worth or both), lack of life-meaning, and characteristics of self.

For many participants, feelings of inadequacy stemmed from low self-esteem, in the form of not having a clear identity by which to define oneself, and a lack of self worth. For example, Kylie, who changed her career path on multiple occasions in a short period of time, felt vulnerable, anxious and inadequate because she didn't have a clear identity from which to draw a decision about her career path. This experience was compounded by the fact that Kylie felt she couldn't take the time to find herself and alleviate the anxiety: "I didn't have the self-esteem to be able to take a step back and say, maybe I should defer for a year, and just find myself". Hence, Kylie was feeling inadequate because she didn't have a sense of self or direction, and this intensified as Kylie was not allowing herself the time and space to discover herself.

While for other participants, such as Isabella, feelings of inadequacy stemmed from low self worth, and manifested in the form of constant self doubt: “A lack of confidence. A lack of confidence in what you look like, who you are, and what you say”.

Another source of inferred feelings of inadequacy is a lack of life-meaning. Without life-meaning the individual may feel as if their life lacks purpose and is worthless. The words of Fiona reflect the how the process of not having a purpose in life, increased her vulnerability to the threat of failure:

So not knowing what I wanted to do, left you in this place that was very uncertain, and you did feel like a failure because it was like; well I’m supposed to know what I’m supposed to do, but I don’t. (Fiona)

For other participants, such as Beth, Amanda and Ellie, feelings of inadequacy stemmed from feeling different to others in appearance or general characteristics:

I have always been very tall. I’m 6’2”. I’d always been told that “oh, you’re so big, you’re so big”. I wasn’t big as such, but I had a large frame and was very tall. I was really sensitive about it. I started dieting and messing around with losing weight and stuff when I was about 11 as I was really uncomfortable about my size. (Beth)

There was only three of us dancing in the class. The other girl was naturally skinny, then the girl who was anorexic and then there was me. I decided I didn’t want to be the fattest one in the class, because I did it so much, and it meant so much to me. They were both really good dancers, and I thought that might have something to do with it. (Ellie)

Everyone was nicer. Everyone was more loveable. Everybody is better than me. (Amanda)

In summary, based on participants’ responses, feelings inadequacy tended to stem from difficulties with self esteem (identity and worth) and life-meaning, or a perception that a characteristic of themselves separated them from others. Family dynamics, and the processes of social learning and social comparison in relation to family, peers and society appeared to play a significant role in the establishment of feelings of inadequacy as these processes established what is the ‘norm’ or ‘adequate’. As the individual feels inadequate they feel at increased risk of experiencing the threat.

Impaired Ability to Cope

In the previous sections it was established that, around the onset of anorexia nervosa, participants were in a state of distress, created out of a perceived vulnerability to a threat, a perception created through both internal and external processes. Yet distress is experienced by many individuals, with not all developing a psychological disorder, which brings us to the next point in the Threat, Distress, Alleviation Model: how does distress begin to manifest as a psychological disorder? Distress begins to manifest as a psychological disorder when an individual struggles to cope with the distress, or uses unhealthy means of coping with the distress. All but two participants experienced a difficulty in coping with their distress around the onset of anorexia nervosa. Beth's words reflect her experience of struggling to cope:

Everything was just like getting on top of me. I stopped working. I wasn't coping with studying. I wasn't coping with my housemates. I was just; everything was getting way too much. (Beth)

The ability to cope with distress around onset of anorexia nervosa was impaired by both internal and external factors. Internal factors that impaired an individual's ability to cope with distress included impaired insight into the cause and nature of distress, and uncertainty as to how to cope with distress. Kylie reflected on how, by the time she realized she needed to seek coping strategies, she had already become reliant on an unhealthy coping mechanism:

I just thought that this was a normal way of feeling, and as the food restriction intensified and exercise intensified, that became my only coping strategy. So I'd already moved out of a healthy zone of coping (by asking a counsellor, talking to a friend or a parent) into an unhealthy zone. (Kylie)

Annabelle's experience reflects uncertainty regarding how to cope with the distress, in the form of not knowing how to express distress to others:

My dad had died of cancer, about 12 months before I went into hospital, but my eating disorder started a few months after he died. I guess looking back, I think I wasn't aware of how to tell people how I was feeling at the time. (Annabelle)

External factors can also impair an individual's ability to cope, in particular by impairing the individual's capacity and willingness to seek help from others. External factors generally involved the individual not having anyone to go to in their distress

(commonly related to disconnection, harassment or abuse), or a negative experience when turning to others when in distress (commonly related to the experience of boundary blurring, abuse and harassment), in the form of over-reaction or dismissal. Lisa, as well as other participants, noted their experiences of difficulties in relation to approaching their family with their distress: “There wasn’t really a feeling that we could go to mum or dad, and disclose anything really personal. It was all too much of a drama”. The impaired ability to cope, due to internal or external factors, resulted in the distress continuing to build and intensify.

Alleviation of Distress

What appeared to shape the manifestation of the distress into anorexia nervosa for participants were messages, thoughts and beliefs regarding what will alleviate the distress.

I think it’s that you have got this feeling maybe, or you need a coping mechanism or something, and then because that [message] is so out there, that you should be thin. You automatically, well for me, you grab onto that as something that’s going to make you feel better. (Annabelle)

As reflected in Annabelle’s experience a prevalent message in society is that weight loss or being thin, will make you feel better, and alleviate you from your distress.

Distress Alleviation for the Threat of Failure

For participants who feared failure, a contributor to the manifestation of anorexia nervosa was the perception that changes to weight or appearance would reduce the potential vulnerability to failure, by reducing their own internal vulnerability and sense of inadequacy.

I never thought I was doing anything worthwhile in my life, but I thought if I was losing weight or dieting, that would give me something to get up for. Although it is pretty much stupid, but I thought it would be like, I’m good at dieting, so I can show people that I can do that. Then I always thought that if I did lose weight then I would be able to do something worthwhile in my life. I thought it came in that order. (Ellie)

But it combined, the fact that I was failing at university but succeeding with the diet, was a bit of compensation. (Julie)

As indicated in Ellie’s and Julie’s experiences, dieting and exercise alleviated their personal sense of vulnerability, as being able to successfully diet created a sense of

achievement that in turn reduced feelings of inadequacy. While for others, like Isabella and Lisa, success was associated with being a particular weight or size: “I thought that to be a good runner you had to be quite thin”.

I had this like concept in my head that I would have a higher chance of being successful if I was thin. It was like; okay I have to be totally skinny and that would be my ticket to everything. (Lisa)

Weight loss and dieting reduces distress created from perceived vulnerability to failure, as it can provide the individual with a sense of achievement (reducing internal sense of inadequacy), and is associated with success, thereby a direct means of avoiding failure.

Distress Alleviation for the Threat of Rejection

For participants who feared rejection, a contributor to initial behavioural changes to diet and exercise was a perception that they would be more likely to be accepted, and less likely to be rejected if they appeared in a particular way. Shelley reflects on how she believed by focusing on weight and food, she would gain her mother’s acceptance:

The only reason I didn’t take up alcohol and drug abuse, and I went for the food was because mum remarked so often on food and weight, while drugs and alcohol were totally banned. So there was such a fear of that area [drugs and alcohol], and the only area that felt safe and accepted was the food. The food issue and the weight issue and I felt, well that’s what she wants, then that is what I will do. (Shelley)

Distress Alleviation for the Threat of Annihilation

There was a difference in how distress alleviation from annihilation due to external factors, as opposed to internal factors, presented. For participants feeling as if they were facing the threat of annihilation from external source, particularly harassment or abuse, distress alleviation involved trying to disappear.

I did experience childhood sexual abuse as a child as well, and that played a role in the way that I saw my body. I did want to be smaller and disappear to a certain degree, or perhaps just to be faceless or something and to go through what I was going through without any questions, like to be looked through. (Lisa)

As reflected in Lisa’s quote, by disappearing one may become less of a target, or one may be able to hide from the incoming force. While, for participants whose threat of

annihilation stemmed from boundary blurring, distress alleviation involved gaining control.

For those participants' who felt as if they were facing the threat of annihilation from an internal source, distress alleviation involved trying to block or distract themselves from the threat, which is reflected in the words of Kylie and Ellie.

Yes I was trying to numb the anxieties about where my life was heading, and in a sense that's trying to regain control, I think. (Kylie)

It gives you something else to think about. Yeah it gives you something to think about during the day, if you don't have anything think about or anything to achieve for. (Ellie)

Summary of the Threat, Vulnerability, Distress Alleviation Model

In summary, around the time of onset of anorexia nervosa individuals tend to be highly distressed, which manifested in the form of confusion and intense emotions. This distress largely stemmed from the perception that one is vulnerable to a threat (failure, rejection or annihilation); a vulnerability that is created through both external and internal processes. The distress intensifies as the individual struggles to find a means of coping. As the individual feels distressed and vulnerable they seek for, and latch onto, potential means of alleviating the distress and navigating the threatening world. Messages received regarding distress alleviation at that point in time, or throughout the individual's life, shape how the distress is manifested or addressed. All participants experienced varying levels of exposure to messages regarding distress alleviation through dieting or weight loss, and these messages shaped the manifestation of anorexia nervosa.

Discussion of Aetiology Findings

One of the themes noted throughout this research is the importance of tying together knowledge in a meaningful manner, and in turn applying that knowledge. Reflection of the Threat, Distress, Alleviation Model and the literature indicates that this model is potentially an effective means of organizing, and tying together factors and experiences from a variety of different orientations in a meaningful manner. This in turn can be used for the identification and exploration of treatment needs for prevention programs. If this model is an accurate reflection of the experience of onset of anorexia

nervosa, one would expect the efficacy of prevention programs to be increased, as increasing elements of the model are addressed. However, it is important to note that these findings and model are preliminary in nature, and the study was potentially impaired by methodological difficulties and biases.

In chapter 2 it was suggested that genetics may play a role in the development of anorexia nervosa, yet the field and sufferers alike were uncertain as to what specifically is inherited. There were four main potentially inherited contributors to the development of anorexia nervosa, noted in the literature and by participants: the disorder itself (as indicated by a fascination with the disorder and/or other presentations of the disorder within the family), personality traits (in particular perfectionism and obsessionality), physical appearance (e.g. height, weight, pubertal development), and presence of mood disorders. The latter 3 factors are biological factors that increase the perception of and experience of a threat.

Personality, particularly perfectionism was raised, both in the literature and in participants' experience, as a personality trait that may play a role in the development of the disorder. Perfectionism significantly increases the threat of failure as one is more likely to have high expectations and set goals of an unrealistic nature. One's sense of vulnerability is also increased, as with such high expectations the individual struggles to feel adequate.

The impact of one's physiology (be it inherited or not) may vary depending on what aspect of physiology one focuses on. An individual's body and physiological development can increase or decrease their sense of vulnerability, pending whether the individual feels their body is adequate or 'normal' (in relation to threats of failure or rejection), or pending reaction of others in the environment (in relation to threat of reject or annihilation). While physiology in relation to mood, in the form of increased risk of or actual experience of a mood disorder, may increase one's threat of internal annihilation (with emotions), distress and sense of inadequacy (due to negative self talk).

The social-cognitive theories presented in chapter 2 provide insight into how perceptions of threat, vulnerability and alleviation of distress may form. Through social learning an individual learns not only about the thin ideal, but also how safe or

threatening the world is and how vulnerable they are to it. The individual also learns means of alleviating distress, such as weight loss.

Through the process of social comparison, especially upward comparison, an individual may perceive particular threats in the environment, and perceive themselves as at risk to these threats. In particular the individual may engage in upward comparison, and thereby feel inadequate, and more vulnerable to the threat of failure and rejection as they feel different to others.

Family interactions play a role across the Threat, Distress, Alleviation Model. To begin with, the blurring of roles is not only a threat of annihilation, but it also increases one's vulnerability and impairs one's ability to cope. When there is a blurring of roles the space in which an individual develops a sense of mastery and self, as well as develop personal coping mechanisms is significantly reduced. Hence, when a blurring of boundaries is experienced the individual is vulnerable, as they are likely to feel inadequate and may have few coping mechanisms. The family focus on food and achievement increases the perception of threat (particularly of failure and rejection), vulnerability (by increasing feelings of inadequacy), and provides messages of alleviation of distress through food restriction and body change. While poor family communication can provide a threat of rejection, and contribute to poor coping mechanisms.

The existential pieces presented from the field provide insight into the ways in which one's sense of vulnerability is increased, as with low life-meaning the individual may feel more vulnerable to failure (as it may be perceived they should know their life-meaning) and rejection (as the individual may feel without a source of life-meaning they may be rejected). The exploration of how weight loss and thinness are associated with improved life-meaning raised in chapter 2 also provides insight into how weight loss, being thin, and food restriction may become perceived as a means of alleviating distress.

As indicated in these previous paragraphs reflection of the knowledge and hypotheses presented in chapter 2 and how it fits within the model to create an understanding of the complex experience of anorexia nervosa provides preliminary support for the model in the form of theoretical triangulation. Yet, a theme of chapter 2 was that different theories and hypotheses provided a degree of insight, but also frequently left questions unanswered. Common questions included; Why do some people

develop anorexia nervosa, and others diet and exercise? Why develop anorexia nervosa as opposed to another disorder or behavioural issue and, why at that particular time in the individual's life (i.e. what triggered the disorder). Further preliminary support for the model is gained in that it may provide a source of answers to this question. Although the Threat, Distress, Alleviation Model initially appears to be general and simple, what is evident is that a number of experiences (possibly of varying intensity) need to be present in order for an individual to develop anorexia nervosa. Therefore, it is likely that quantitative experience, in the form of presence of factors, combined with qualitative experience, in the form of intensity of experience, separates individuals who develop the disorder from those who do not, as well as determining when an individual will develop the disorder. The high prevalence of onset of anorexia nervosa in adolescent females is likely to be due to the increased probability of a number of factors culminating at this time due to puberty, development and social factors.

It is also interesting to note that the majority of presentations of self starvation (religion, politics and art) noted in chapter 1, reflect a degree of alleviation of distress through self starvation. However, the threats and vulnerability behind the distress may be different at that period in history. Religious based fasting alleviated distress by reducing exposure to demonic forces, as well as increasing likelihood of holy or positive spiritual experiences. Politically based fasting alleviates distress by providing a means of communication, and fasting artists distress may be alleviated by the sense admiration they may experience from those who watch. Thereby, the Threat, Distress, Alleviation Model may not only assist in understanding of anorexia nervosa in today's society, but may also provide insight into self starvation over historical periods. Yet, as the findings are preliminary and exploratory in nature, it is important that future research explores the findings, and understandings gained from the findings, further. Thereby confirming, disconfirming and elaborating on the knowledge gained.

Although increased understanding of anorexia nervosa in itself is highly significant and important, it is also important that the understanding gained is used and implemented, in the form of prevention programs. Within the Threat, Distress, Alleviation Model there are a number areas which a prevention program could target.

Threat of Failure

Prevention programs that would assist in reducing or alleviating the threat of failure would target reducing expectations to a reality based level; while also reducing the severity of the consequences of failing. Although ideally the threat of failure would be addressed at both at a societal and individual level (by reducing societal expectations and judgement), addressing the threat of failure at an individual level is more achievable. In fact, a cognitive behavioural based treatment whereby individual's are encouraged to question their thoughts, seek evidence and come up with alternatives, is a potential form of treatment in reducing the threat of failure. Improving individual skills in goal setting may also be beneficial, as the individual learns to set manageable and achievable goals, as well as to review the progress (or lack thereof) made in relation to goals and adjust them accordingly. Through these processes an individual could learn realistic expectations and goals, as well as not to catastrophize when expectation or goals are not met.

Threat of Rejection

Prevention programs that would target the threat of rejection, would be aimed at addressing the individual's perception that people don't like them, or won't like them if they don't conform to a particular standard. Again, a CBT based approach could be tailored to address the threat of rejection, by challenging an individual's thoughts and concerns around social situations. While a social skills program would also likely reduce the perceived threat of rejection, as by improving an individual's social skills, the individual may feel less detached or rejected by those around them. Self-esteem programs may also be beneficial, as with improved confidence the individual is more likely to engage in social interactions, and have increased resilience to any negatives that may occur in interactions.

Threat of Annihilation

Prevention programs aimed at reducing the threat of annihilation would potentially focus on increasing understanding of what are healthy, and what are unhealthy, interactions and relationships, reducing the perpetration of abuse (physical, emotional and sexual) and improving individuals ability to respond and seek help when an invasion of being occurs. To thoroughly address the threat of annihilation it is likely

that interventions would need to address a number of populations, including victims, perpetrators and the general public. Psycho-education programs focused on relationships in general, as well as abuse, would be one such intervention that may reduce the threat of annihilation, by bringing an individual's awareness to appropriate and inappropriate relationships and interactions, and appropriate ways in which to respond. Assertiveness skills programs may also assist in reducing the threat of annihilation, as through these programs the individual may learn skills to prevent or reduce the occurrence of an invasion of being. However, with the electronic age and incidence of cyber bullying, it is likely the threat of annihilation will continue to be a threat, and possibly one that is difficult to eliminate or reduce.

Vulnerability

Programs addressing vulnerability created by external factors (i.e. dangerous or ideal environment), are particularly difficult to implement as they involve addressing problems that exist at societal level. Programs aiming at reducing the dangerousness within the environment would involve increasing awareness, understanding and encouragement of change in society members. Psycho-education would be the main form in which this intervention would take, however a number of questions are likely to be raised as to what dangers in society need to be addressed, and what is the most efficacious way of doing so (i.e. identification of core components of education, target group and means of reaching this group). The psycho-education raised above in relation to reducing threats, would also be likely to also reduce vulnerability. Psycho-education programs, and programs that encourage an individual to challenge portrayals of the ideal or perfection, may also be effective in reducing vulnerability created from the perception of an ideal or perfect environment.

Developing and implementing programs that reduce vulnerability at an individual level may have fewer obstructions or difficulties. Programs attempting to reduce internal vulnerability would address individuals' feelings of inadequacy.

Distress and Coping

Programs aimed at addressing the distress and coping aspect of the Threat, Distress, Alleviation Model, are likely to focus on improving individuals' ability to identify, tolerate and manage emotions. Currently, the three waves of behavioural therapy

(CBT, DBT and ACT) are prevailing in discussions and research on management of distress and emotions. However, each of these can be very intensive forms of therapy, and therefore possibly not suited to a prevention program. It may be possible that elements of these different therapies can be encompassed in a prevention program. Other skill based interventions, aimed at reducing distress, such as relaxation, visualization or meditation could also be used.

Alleviation of Distress

Other than increasing an individuals resources of managing distress, programs aimed at the alleviation of distress aspect of the aetiology of anorexia nervosa would focus on reducing the perception that being thin will reduce distress. Again a CBT based approach may assist in addressing this perception, and also improving an individual's skill in critical analysis and media literacy. Whereby the individual learns to challenge and be sceptical of some of the messages in society.

Table 9 (over the page) summarizes the components, aims and potential prevention interventions that could be used as part of a prevention program. Although, the aims of and potential prevention programs are in component form, there is a lot of cross-over between the different components and it is important, for reasons presented throughout this paper, that one does not just focus on one component. Thus prevention programs for anorexia nervosa should cover a number of the components, providing individuals not only with education to increase their insight and awareness, but also skills to manage thoughts, feelings, behaviours and interactions. Based on one's training, it is likely that there are many more and different potential interventions that could be encompassed in a prevention program.

Table 9: Prevention interventions tailored to the Threat Distress Alleviation Model

Component of the Model	Aim of intervention	Potential Prevention Intervention
<i>Threat of Failure</i>	<ul style="list-style-type: none"> • Assist development of realistic goals and expectations. • Reduce severity of perceived consequences associated with failure. 	<ul style="list-style-type: none"> • CBT • Psycho-education and skills on goal setting
<i>Threat of Rejection</i>	<ul style="list-style-type: none"> • Reduce perception and experience of being rejected or disconnected from the world. • Improve self esteem and social skills to assist ability to interact with others. 	<ul style="list-style-type: none"> • CBT • Social skills
<i>Threat of Annihilation</i>	<ul style="list-style-type: none"> • Increase understanding of what are healthy/unhealthy relationships and interactions. • Reduce perpetration of abuse (physical, emotion and sexual). • Improve individuals' ability to prevent and respond to unhealthy interactions or relationships. 	<ul style="list-style-type: none"> • Psycho-education • Assertiveness skills training
<i>Vulnerability</i>	<ul style="list-style-type: none"> • Reduce perceived and actual dangerousness of the world. • Reduce perception of world as ideal. • Address the individual's feelings of inadequacy, particularly by building self esteem and meaning. 	<ul style="list-style-type: none"> • Psycho-education • Media literacy • CBT
<i>Distress/Cope</i>	<ul style="list-style-type: none"> • Increase ability to identify, tolerate, manage and communicate emotions. 	<ul style="list-style-type: none"> • CBT • ACT • DBT • Relaxation
<i>Alleviation of distress</i>	<ul style="list-style-type: none"> • Reduce perception that weight loss/food restriction/body change will alleviate distress. • Assist development of healthy means of alleviating distress. 	<ul style="list-style-type: none"> • CBT • DBT • ACT • Relaxation

As noted earlier the findings and model is tentative, as the research is exploratory in nature, and was subject to methodological difficulties and potential research biases. The sample consisted of a small number of self defined recovered sufferers, and as noted in chapter 3 there are inconsistencies in the literature around the definition of recovery, and such variation can potentially create variation in findings, and impede accuracy of

recall. A direction for future research may be to have a stricter definition of recovered, or a number of definitions and compare them.

The findings may also have been compromised by the length of time between onset and the interview, and the age of onset. Some participants were very young at onset, and time between onset of the disorder and the interviewed varied from 2 years to 42 years (mean = 16.5, standard deviation = 12.2), hence accuracy of recall of events may have been jeopardized.

The use of the adapted worlds of being, as well as presenting theory from different paradigms, may on the one hand, strengthen results by providing a means of organizing and triangulating participant experiences, but may have also filtered the results in a particular way. The researcher's orientation in existential psychology, and training in therapies of a behavioural nature, may also have filtered the results and discussion. Hence, due to the preliminary and exploratory nature of this current research, extensive research is needed to further explore these findings, and what these findings generate in terms of understanding and possible prevention programs.

Summary of Aetiology Findings and Discussion

Through the process of data analysis different levels of findings emerged, each moving closer to answering the question; what is the subjective experience of the onset of anorexia nervosa. The first level of findings uncovered the relevance of theory and hypotheses in the field to participants' experiences. It emerged that theories and hypotheses in the field are generally relevant to participants' experience, and concerns noted in the field also parallel participants concerns.

The second level of findings ties together the previous level's findings, with other aspects of participants' experience, using the adapted worlds of being. It was evident that participants' external world was characterized by a sense of disconnection, invasion, pressure and a focus on appearance, while, their internal world was characterized by distress, confusion, a focus on achievement and appearance.

Yet it is only in the final level of findings, and the creation of the Threat, Distress, Alleviation Model that knowledge from the field and participants' experiences is tied together in a meaningful manner, capturing interactions and changes in time. According

to the Threat, Distress, Alleviation Model at the time of onset of anorexia nervosa the individual is experiencing intense distress. This distress largely stems from the perception that the world around is threatening, and that the individual is vulnerable to the threats that exist. As the individual is vulnerable, distressed, and struggling to cope they may seek and latch onto, any potential means of alleviating the distress. As the individual has been exposed to many messages throughout their life, suggesting the importance of a particular appearance, in particular weight and shape, the individual may turn to these messages to alleviate their distress and adapt their behaviour accordingly. Hence, anorexia nervosa may stem from attempts made by a highly distressed individual to reduce distress based on messages prevalent throughout society about the meaning of appearance.

Within the Threat, Distress, Alleviation Model contribution of knowledge from different paradigms is evident, but the model goes beyond the contributions and captures the complex subjective experience of anorexia nervosa. As the Threat, Distress, Alleviation Model ties together knowledge from a variety of different sources in a meaningful manner; it has the potential to be used to assist development and implementation of prevention programs. However, it is important to note that findings are tentative and preliminary in nature, and future research is needed to confirm, disconfirm and/or expand on the findings.

Chapter 6: Maintenance Results and Discussion

The experience of the maintenance of anorexia nervosa is a dynamic one, with a degree of overlap between late onset and early maintenance, as well as late maintenance and early recovery. The understanding of the processes involved in the maintenance of anorexia nervosa that currently exists in the field appears to accurately reflect experience, as indicated by participants generally agreeing with the pieces of knowledge presented. However, an increased understanding of the experience of the maintenance of anorexia is gained when this knowledge is combined with further pieces of participant experience in the adapted worlds of being. Yet as the disorder progresses, participants experience of the disorder changes, and there appears to be three inter-relating phases in maintenance of anorexia nervosa: Building of a Haven, Paradise Lost and Path to a New Haven. Through a reflection on the literature in the field, it becomes evident that these phases, as well as the Threat, Distress, Alleviation Model organize knowledge (both from the field and participant experience) in a way that captures the dynamic experience of maintenance of anorexia nervosa. This in turn increases understanding anorexia nervosa, and increased understanding can increase early detection, and improve interactions with and interventions for individuals with anorexia nervosa.

Confirmation and Clarification of Pre-existing Pieces: Relevance of
maintenance theory to participant experiences

A trend noted in the previous chapter was that participants generally found knowledge gained from the four different paradigms (biological, social-cognitive, family and existential) relevant to their experiences. This trend continued into maintenance, whereby participants tended to find the pieces of knowledge presented relevant to their experiences, as indicated by participants agreeing (68% of responses) or partially agreeing (13.5% of responses) with the maintenance pieces presented. As reflected in Table 10, there was variance in participants' response to knowledge from different orientations.

Table 10: Summary of Perceived Relevance of Maintenance Pieces

	Biological	Social-cognitive	Family	Existential	Total
Agree	12 (92%)	8 (62%)	16 (62%)	9 (69%)	44 (68%)
Partial	0	2 (15%)	6 (23%)	1 (8%)	9 (13.5%)
Disagree	1 (8%)	3 (23%)	4 (15%)	3 (23%)	12 (18.5%)
Total	13	13	26	13	65

Biological

The biological maintenance piece participants were asked to consider, was the impact of starvation on their body, and whether this may have played a role in the maintenance of the disorder. Twelve participants found the piece relevant to their experience, noting the role of starvation in the maintenance of anorexia nervosa. In particular, participants noted their impaired ability to function at a cognitive level, citing inabilities to think clearly, concentrate, and retain information. Participants also noted the experience of physical exhaustion that occurred as the disorder progressed. Lisa's words reflect how, due to starvation, she no longer had the resources to consider recovery as option.

That's definitely true. The less that I ate, the more and more stubborn I was capable of being. Choices definitely go out the window, because once you're that exhausted, you just don't have the energy to think about other versions of what it [life] could be. It's quite an amazing thing to describe, but it does happen. (Lisa)

One participant reported not finding the piece relevant, as she felt although her body was starving, it did not impact on her functioning in such a way that it contributed to the maintenance of the disorder.

Social-Cognitive

The social-cognitive piece participants were encouraged to reflect upon, was how social rewards played a role in the maintenance of anorexia nervosa. Eight participants found the piece relevant, with social rewards early in the disorder tending to take the form of compliments, which made participants feel good, and justified their behaviour. This process is reflected in the words of Julie:

If you're a person who has been carrying a bit of extra weight, you get so many compliments when you first lose weight that it helps to produce the high (which doesn't last of course), but it is pretty important. (Julie)

In chapter 2, the question was raised of why restricting behaviour continues upon discontinuation of rewards, which tends to occur as the disorder progresses. Participants' responses provided insight into a possible answer to this question, with a number of participants noting they experienced an expectation that rewards would return if they continued to lose weight.

Two participants (Nicole and Mel) partially agreed with the role of social rewards in the maintenance of their disorder. These participants noted that rewards did play a role in the maintenance of their disorder; but the rewards were more internally based, not external.

Three participants (Lisa, Amanda and Bree) did not feel the piece was relevant to their experience, noting that they did not receive any social rewards during their eating disorder. One participant noted that her negative mind turned on any comments made to her; hence there were no social rewards.

Family

Participants were asked to reflect upon changes within the family dynamic that may have occurred, and that played a role in maintaining the disorder, in particular the role of power or control. Six participants found this piece relevant; noting the power and control they gained over their family through anorexia nervosa played a role in the maintenance of the disorder. In particular, participants liked the increased attention they received from family members (as reflected in Beth's words), as well as their ability to manipulate and control family members (as reflected in Bree's words):

When I was first hospitalized, I was the centre of attention and it was great. I think that it's been a big factor, and it's very immature, and it's very selfish. (Beth)

You do gain some control, and its like "don't touch me, I wont eat", or stuff like that. It's sort of a weapon. If you are angry and bitter. (Bree)

Six participants partially agreed with the role of power within the family in the maintenance of anorexia nervosa. These participants noted that the dynamics within the

family changed, resulting in the participant receiving more attention or power, but they did not want it or were confused by it, as reflected in Annabelle's words.

I guess in some ways that [attention] is what I was wanting, but then there was also a part of me that resented the fact that mum was, going around and getting all worked up about things, and I just wanted her to leave me alone. (Annabelle)

One participant, Shelley, did not find this theory relevant, as her family's dynamics did not change, since her family was unaware of her disorder.

Well you see mine didn't have that, that didn't happen. I can't comment very much on that area. My eating disorder was a secret, my mother, my family never even knew. (Shelley)

In chapter 2 it was noted that anorexia nervosa stems from an attempt to develop autonomy and identity in an environment where the individual does not have autonomy. Participants were encouraged to think about how anorexia nervosa may have become their identity, in an environment where they may have had no other means of developing identity. Ten participants felt that their anorexia nervosa became their identity, as their focus became entirely on their physical body. As the disorder progressed the anorexia nervosa identity became more entrenched and difficult to let go. Lisa reflected on how hard it was to relinquish her eating disorder identity or 'friend': "Yeah, even right till the end it was really hard to let go of that identity. It becomes like this evil friend".

Three participants (Fiona, Mel and Bree) did not find the piece relevant to their experience, noting that they tended to retain an aspect of their own identity (as reflected in Fiona's words), or did not want to be identified as an anorexic, as it was associated with negative connotations: "I think I retained a lot of myself, anyway. I didn't become a very anorexic like person that people think of".

Existential

In chapter 2 it was noted that anorexia nervosa may stem from a misguided attempt to develop life-meaning, and upon developing the disorder it may become an individual's source of life-meaning. Nine participants found this piece relevant to their experience, noting that goals around weight loss, food and exercise took over their life focus, at the expense of other life goals. The anorexia nervosa goals provided the individual with a sense of accomplishment, and provided a source of life-meaning which

enabled the individual to avoid the frustration and disappointment that may be encountered with other sources of life-meaning, as reflected in Annabelle's words.

I can relate to that one, just because when you have an eating disorder there is just the one goal, and that is to just keep losing weight. It is something that you can do. So it is easier than most goals in life, where you might have to face frustration and disappointment. It does give you a sense of meaning. (Annabelle)

One participant (Mel) partially agreed with the theory, noting that she felt torn between wanting meaning in the disorder, and wanting to die.

Three participants (Fiona, Julie, & Bree) did not find the piece relevant; with two participants noting that the disorder robbed them of developing life-meaning, as reflected in Fiona's words:

I think it gave me a sense of control, but didn't really give me a sense of meaning, because there is a lot of things that I wanted to do, but I was not able to because of the disease. (Fiona)

While one participant (Julie) noted, that despite the demands of the disorder, she continued to pursue other sources of life-meaning.

Summary of Confirmation and Clarification of Pieces

In summary, despite the fact that there is relatively little in the field on maintenance of anorexia nervosa (compared to that on aetiology and recovery), participants found the knowledge that exists in the field relevant to their experiences. In particular, participants found the role of the impact of starvation in impeding ability to recover, highly relevant. While social rewards were also seen as a maintaining factor, and when there was an absence of social rewards, internal drive and expectation of rewards played a role in maintaining the anorexia nervosa. Family dynamic change was less relevant for participants (compared to other processes) in maintenance. Yet, the concept of self that was initially raised in chapter 2 in relation to family, but spread further than the context of family, was perceived as more relevant. The responses to the existential piece reflected the literature, whereby on the one hand anorexia nervosa appears to provide a source of life-meaning, and on the other it takes it away. However, the experience of maintenance of anorexia nervosa stems beyond what is captured by the attribution of personal experiences to theory.

Organization of Maintenance Pieces: Theory and Experience

Upon organizing pieces of knowledge and experience (from the field and participants) into the adapted worlds of being it became evident that in maintenance participants became increasingly withdrawn from interactions in the Umwelt and Mitwelt. Some new interactions emerged in these worlds, in the form interactions with treatment. As participants withdrew from the Umwelt and Mitwelt, they became increasingly focused on their Eigenwelt and Core, which were consumed by anorexia nervosa. A number of issues experienced in onset continued to be present, yet the individual tended to experience them in a different manner due to the presence of anorexia nervosa, and changes over time.

Umwelt

Participants were generally more withdrawn from Umwelt (as indicated by few participants noting elements of the Umwelt), and therefore Umwelt is perceived as less threatening or dangerous compared to Umwelt in onset. Yet, experiences participants did note in relation to Umwelt that pertained to the maintenance of anorexia nervosa were of disconnection, treatment or both.

Disconnection

Disconnection, as noted in onset, refers to experiences that significantly reduce an individual's ability to connect with the world around them by creating disruption or distress. Six participants experienced disconnection in maintenance, which took the form of either death or transition.

Loss of a family member or loved one during maintenance of anorexia nervosa was experienced by two participants (Shelley and Fiona). The distress created from the loss not only impeded participants' ability to connect with the world around them, but also propelled them towards their eating disorder as a means of coping. This process is reflected in the words of Shelley:

Then my husband died of suicide, and I attempted suicide, and everything happened in my life. I look back now and I see the eating disorder kept me away from my buried emotions and grief. (Shelley)

Yet death was not the only form of disconnection experienced by participants, transition is another experience that created disconnection. As time has passed since

onset of anorexia nervosa the experience of transition changed slightly, and involved relocation, moving from university to work or changing work environment, as opposed to schooling change. These forms of transition were disruptive and stressful for participants, as they had to adapt to the new environmental demands. Julie reflects on the negative effect of being transferred to a different location through work:

Not long after that I was transferred to Toowoomba (about 120km from Brisbane), but I didn't get a referral to another doctor up there, and so I just got more and more down. I would weigh myself on the same scales that we had at home, when I came home on the weekends to Brisbane. I had to reach that goal of being 6 stone 10. Every Friday that I came back to Brisbane, it just became a driving force. (Julie)

Treatment

Aspects of treatment contributed to the maintenance of anorexia nervosa for nine participants, and took two forms; difficulty in accessing treatment programs and difficulty adapting to a particular treatment program. Difficulties in access to treatment programs were largely due to the location, or financial reasons. For example, Amanda who was able to afford private health insurance reflects on the plight of those who did not:

Perth is just terrible for eating disorders, and eating disorders are becoming such a huge problem, and we just don't have the resources in Perth. Other girls who I have met, who do not have private health, can't even go anywhere after they have turned 18, other than Perth clinic where they are with people with different [psychiatric] problems. (Amanda)

Upon entering treatment programs a number of participants reported struggling to adapt to the treatment program. Elements of treatment programs that participants found particularly difficult included; the removal of control, rapid weight gain and strict expectations or rules of treatment programs. The impact of struggling to adapt to treatment programs were that individual's were reluctant to approach services, or the experience contributed to further negative thoughts and feelings (as noted by Annabelle), or a dangerous cycle of weight gain and loss was establish (as noted by Amanda).

Not having control to make decisions, and having people tell you what to do, and treat you like you're incompetent. I think that's bad, because people with eating disorders already feel like they are incompetent. (Annabelle)

Their [the treatment centre] idea was to restore weight and then to have therapy, but more to focusing on that [therapy] when you left hospital. While for me that didn't work because I'd leave hospital and I was so horrified at my weight, so I would lose the weight again go back in, and it would just be a cycle. I was at that stage for probably the first 1½ -2 years. I just did that cycle. (Amanda)

Mitwelt

Fourteen participants noted interactions in their Mitwelt played a role in the maintenance of the disorder. The Mitwelt continued to be a dangerous place for participants, in the form of lack of connections and judgment. However, participants also had a source of positive reinforcement in their anorexia nervosa.

Disconnection

In onset participants noted experiencing disconnection (a difficulty in relating to others), and this was also an experience encountered in maintenance by fourteen participants. Yet in relation to maintenance, participants were able to describe different levels of difficulties with interactions, including: difficulty in making an actual connection, difficulty in making an emotional connection, and difficulty in making a cognitive connection. Difficulties in forming connections can play a role in maintaining anorexia nervosa by reducing potential early identification, increasing an individual's distress and decreasing their ability to cope with distress, which in turn increased eating disorder symptoms.

Difficulties with forming an actual connection were noted by nine participants, and included: perception of isolation from others, others perceived to not notice the participants distress or the disorder, and difficulties in communicating. Kylie reflects on how her own denial, combined with other people not approaching resulted in a rapid downward spiral:

It was something that I was not admitting to myself, let alone other people. Yet, other people weren't approaching me, because I'd always been thin anyway. I guess there was a real downward slide in my health, and all that stuff happening in a short period of time (3-4 month period). There was very much the denial, and other people were not sure of how to approach me, and things sort of rapidly declined after that. (Kylie)

Twelve participants experienced difficulties in forming an emotional connection with others, which is a connection characterised by trust, empathy, care, attention and

acceptance. Participants noted they experienced a need, and a seeking, for an emotional connection with others, which was commonly perceived as not being met (as reflected in Lisa's words).

I wanted to be heard. I wanted people to know why I was depressed. I wanted an avenue to be able to talk about it, whether with my parents or someone else. I couldn't find the right space to discuss so many things. (Lisa)

Cognitive connection refers to interactions whereby participants felt that there was a lack of knowledge or understanding in the individual in which they were having an interaction with. Six participants had an experience whereby they felt treating professionals did not have an adequate knowledge base of the disorder.

Other people had seen it as an issue, and had got me in to see someone, but the first couple of people I saw over a period of six months, I don't think they really understood the issue, and they really didn't help me. So I think that was a point in time where I feel that something could've been done to prevent it going even further. (Fiona)

As reflected in Fiona's experience, the lack of understanding of treating professionals impeded early identification and treatment (which is associated with improved prognosis).

Judgment

Judgement refers to interactions in which the participant felt the other person was conveying negativity in their interaction with them. Three participants described interactions with treating professionals whereby they perceived they were being judged in a negative manner, which consequentially perpetuated negative thoughts. Interactions conveying the perception that the sufferer of anorexia nervosa is lying or deceptive (as noted by Fiona) are an example of a judgment interaction.

I got really angry in the psychiatric ward, because one of the things that people think about anorexics is that we are all deceptive and very sneaky. I was like, "no, I'm telling you the truth". They were always accusing me of throwing up my meals, because I was anorexic, I couldn't be trusted, and that frustrated the hell out of me. They treated you like you were a criminal, and that perpetuated the very negative opinion of myself that I had. (Fiona)

Positive Reinforcement

Positive reinforcement refers to interactions that may be perceived as rewarding anorexia nervosa behaviour, and were experienced by thirteen participants. Positive

reinforcements took a number of forms including; compliments, increased attention, and power being gained over others. The words of Fiona capture positive reinforcement through attention (in the form of people looking) and comments:

I used to get a kick out of people looking at me, because it meant that I was successful at what I was trying to do. When I did lose about 10 kilos in year 10, and everyone was like “oh you’re so skinny”. I’d feel good because people were commenting on it. So there is a lot of positive reinforcement when you lose weight. (Fiona)

Eigenwelt

Participants’ experience at *Eigenwelt* is of ever increasing exhaustion (due to the impact of starvation), and a disconnection from or distortion of the perception of the body, and presence and seriousness of the disorder. The few physical and cognitive resources that remain are directed towards the anorexia nervosa, due to the individual’s own internal perfectionist drives, and the anorexia nervosa providing a sense of safety, control and distress alleviation. However, participants continued to experience intense emotions, in particular depression and anxiety in the maintenance of anorexia nervosa.

Impact of Starvation

As raised in chapter 2, and noted earlier in this chapter, starvation has a devastating effect on one’s physical and psychological health, and 14 participants acknowledged the role of the impact of starvation in the maintenance of anorexia nervosa. In particular, participants noted how fatigue, physical ailments, emotional difficulties and impaired cognitive functioning trapped them in their eating disorder. The predicament of a sufferer of anorexia nervosa is captured by Amanda:

The more weight you lose, the more distorted your mind gets. Initially I felt great. I was on a high. Then you just hit a point where you are like, why am I so tired? Why am I forgetting everything that I’m meant to be doing? Why can’t I remember what that person has just asked me? You get into this horrible state, and your eating disorder it just gets worse. Your head, it just starts going even more feral with things, and you get an even more distorted image of yourself. It is such a catch 22 situation because you can’t gain weight unless you can see that there is a problem, but the more sicker you get, the more you don’t think there is a problem. (Amanda)

Cognition

All participants described experiencing cognitions that created a drive for thinness or reinforced the anorexia nervosa, and thereby played a role in maintenance of anorexia nervosa. These cognitions included cognitions that; reflected a disconnection from reality (body distortion, and low levels of insight towards presence and severity of anorexia nervosa), were related to perfectionistic drives, or created a sense of safety and control in the disorder.

Disconnection.

Disconnection was experienced by 11 participants, and involved a disconnection from reality, commonly in the form of distortion (six participants) or denial (seven participants). Disconnection prolonged the disorder, as the individual was unable to recognize that they had a problem, or was unable to recognize the seriousness of their disorder, as indicate by Kylie:

It's a funny mindset. I didn't accept that I had an illness, but I knew that something was not quite right. But I hadn't thought long term enough, to realize that unless I did something to move out of it, that life wasn't going to change. (Kylie)

Pressure.

Pressure was experienced by 11 participants during maintenance, and refers to the creation of internal pressure to engage in anorexia nervosa behaviours or achieve. As Karen notes, "you get this internal perfectionist, striving, driving feeling". Creation of internal pressure would take the form of setting high expectations, internal rules, obsessions, determination, and comparison.

Safety.

Five participants noted that they began to feel a sense of security or safety in the disorder. As illustrated by Mel's quote, the predictability and familiarity of anorexia nervosa created safety, and change or recovery involves the unknown (which for many participants was scary).

It probably got that it was safe for me to do what I knew [anorexia nervosa]. It was almost like at least if I did this, I knew what the outcome was and if I didn't, well, I didn't know what was going to happen. (Mel)

Control.

The perception of control played a role in the maintenance of anorexia nervosa for 11 participants in the form of perceiving a sense of control in the disorder (9 participants) or perceiving the disorder to be out of their control (2 participants). Participants who experienced a sense of control in their anorexia nervosa were fearful and hesitant about recovery, as recovery was associated with the unknown and a loss of control.

While participants who perceived the disorder as being out of control, such as Annabelle, felt overwhelmed or daunted by the prospect of recovery: “I guess there were times when I started to lose a lot weight, and I didn’t want to have an eating disorder anymore, but by then I felt a bit like it was out of my control”.

Behaviour

Behaviours in maintenance predominantly revolved around anorexia nervosa, however, twelve participants noted other behaviours that played a role in maintaining the anorexia nervosa. These behaviours included other eating disorder behaviours, as well as addictions. These behaviours were another form of unhealthy coping, and would create further distress for participants.

Eating Disorder.

Twelve participants described engaging in another eating disorder (such as bulimia), engaging in behaviours that would exasperate the eating disorder (such as calorie counting and frequently weighing self), or relapse. All of these experiences maintained the eating disorder as the individual would continue to be struggling to cope and the experiences would perpetuate negative and eating disorder thoughts. Mel became bulimic, and although it helped her restore her weight she was still engaging in an unhealthy means of coping:

When I started working that I started to put on weight, but I never really put weight on in a healthy way. I actually became bulimic. I think I was trying to deal with going to work and the things that happened at work. I had to eat certain foods that were outside what I had allowed myself, and then once I ate them, I started crazily eating more, because I was thinking “oh well. You have eaten this. You have broken your allowance. You might as well eat more”. Then I’d eat so much of the prohibited food, that I brought it up. That became a way of dealing with it, bring it up. (Mel)

Addiction.

Five participants described feeling as if anorexia nervosa was similar to addiction or described experiencing some form of addiction (such as alcoholism). For example Lisa, who also struggled with alcoholism, describes her eating disorder as being similar to an addiction.

In a way I was kind of addicted to it. I think addicted is a good word to use when talking about an eating disorder because you're totally addicted to the pattern of either starving yourself or throwing up or whatever. I know this is a particular aspect of my personality that through various stages and successes (or lack of successes) in my recovery. (Lisa)

Addiction, be it to the eating disorder, a substance or work, maintained the disorder as it perpetuated the compulsion to engage in eating disorder behaviours and impaired the participant's ability to cope and move towards recovery.

Emotions

Fourteen participants described struggling with emotions during the maintenance phase of the disorder. Of the 14 participants, 12 experienced a degree of depression during the maintenance of anorexia nervosa. Some participants attributed the depression experienced to anorexia nervosa, others felt it was pre-existing, while others felt it was a mixture of both.

Anxiety and fear were also common experiences for participants during the maintenance of anorexia nervosa, and were experienced by 10 participants. Although anxiety tended to manifest around food and weight, it also spread to social situations and general life demands. The restrictions created by anxiety, often in the form of avoidance behaviours, further reduced the individual's resources to recover from the disorder. Fiona noted how her fears took over upon leaving hospital, resulting in a return of symptoms:

Basically, it [hospital admission] didn't really help me, because as soon as I got out, I just went straight back down again, because you have these immense anxieties and these immense fears about eating and weight. (Fiona)

Three participants described experiencing emotions other than depression and anxiety during the maintenance phase of the disorder, and these included the emotions of anger, shame and guilt. For example Bree was angry, and her anorexia nervosa was maintained as it was a way of transforming the anger into a weapon:

I was getting back at her, because I was angry with her. It [anorexia nervosa] is a weapon, if you are angry and bitter, and there was anger, bitterness, and jealousy. (Bree)

Core

In onset participants were struggling with who they were, what they were doing with their life, and how to cope with distress and interactions within and between the worlds of being. In maintenance, anorexia nervosa takes the place of the uncertainty noted in onset and becomes participants' identity, source of worth and meaning, and means of coping and interacting with the world.

Self

In onset participants struggled with the uncertainty around who they were, as well as a low sense of self worth. Identity confusion and low self worth continued into maintenance for 13 participants, but as the disorder continued the uncertainty of identity was replaced with anorexia nervosa becoming the participant's identity, and self worth. This in turn maintained the disorder by creating a barrier to recovery, as loss of anorexia nervosa meant loss of identity and worth, as noted by Annabelle:

You get this sense of your self as a person who has an eating disorder and that that's your worth, or that's why people care. That is like an identity. Then it is difficult to want to recover because without the disorder, it is like I wouldn't have an identity at all. (Annabelle)

Life-meaning

As noted in chapter 2, and earlier in this chapter, anorexia nervosa can appear to be a source of life-meaning, as within the disorder one can develop a framework for interacting with the world, goals to achieve, and a sense of purpose and achievement. Eleven participants, including Karen, described their sense of life-meaning becoming tied to their anorexia nervosa.

We spoke about not having the big plan before, and you fall into this smaller one and then that becomes it [your life meaning]. So you're in control of this life purpose and you don't want to let that go because you ain't got nothing else going. I think that's an enormous part of the maintenance of it. (Karen)

An individual's sense of life-meaning becoming entangled in anorexia nervosa creates a significant barrier to recovery, as recovery means letting go of potentially the only source of meaning and purpose an individual has. This is a dilemma that for some contributed to the onset of anorexia nervosa.

Cope

Around onset a number of participants were struggling with developing and implementing coping mechanisms. In the maintenance stage of anorexia nervosa, for 11 participants, the disorder became a means of coping. In particular, anorexia nervosa was a means of avoidance or soothing. Amanda reflected on how her eating soothed her:

I think eating disorders definitely are a coping mechanism. I think it does help with the anxiety, because if I'm anxious about something, and I don't eat then it satisfies me. (Amanda)

Summary of Pieces from Theory and Experience

In summary, in the maintenance of anorexia nervosa participants increasingly withdraw from the dangerous Umwelt and Mitwelt, and interactions in these worlds revolve around the eating disorder (treatment, judgment and positive reinforcement), and are characterized by disconnection. As participants withdraw from the Umwelt and Mitwelt, there is increasing focus on the Eigenwelt and Core. The individual has fewer resources and at the level of these worlds as the anorexia nervosa is dominant, in that participants' thoughts, behaviour, self, meaning and coping revolve around the disorder. Participants are also generally highly depressed or anxious during the maintenance of anorexia nervosa.

Meaningfully Tying Pieces Together: Phases of Maintenance

Although the organization of pieces of experience into the adapted worlds of being captures participants overall experience, it does not capture changes over time or interactions of experience. What was evident in participants' narratives of their experiences with anorexia nervosa was that as the disorder progresses, their experiences of the disorder change significantly. There appears to be three interrelating phases (as illustrated in table 11) in the maintenance of anorexia nervosa; Building of a Haven, Paradise Lost, and Path to a New Haven. These phases as well as the Threat, Distress, Alleviation Model capture an individual's experience of the maintenance of anorexia nervosa, and how this may change over time. The first phase (Building of a Haven) reflects the process of anorexia nervosa alleviating distresses noted in onset. The second phase (Paradise Lost) reflects the building negative impact of the disorder, including the

disorder no longer able to alleviate issues noted in onset. While phase three (Path to a New Haven) reflects both the internal and external barriers an individual may encounter on the way to recovery. It is important to note that although the phases are presented in three distinct parts, the experience of participants is that the phases co-occur, but different phases are stronger over the course of maintenance.

Table 11: Phases of Maintenance of Anorexia Nervosa

Phase	Categories of Experience
Phase One: Building a Haven	<p>Able to cope with distress. Feeling in control. Sense of self: identity and worth. Sense of purpose or meaning. Internal and external rewards. Perfectionist drive. Compare self to others.</p>
Phase Two: Paradise Lost	<p>Feel out of control. Unable to cope. Physical Impact. Impaired Mental Processes <ul style="list-style-type: none"> - Impaired cognitive processes - Distortions Intense emotions <ul style="list-style-type: none"> - Depression - Anxiety Realization of loss of self and life. Realization of distress caused to others.</p>
Phase Three: Path to a New Haven	<p>Intense emotions triggered by recovery path. Ingrained beliefs. Who am I now? What do I do with my life? Wanting safety and routine. How to cope? <ul style="list-style-type: none"> - Relapse - Other eating disorder - Alcoholism Changing body Other People <ul style="list-style-type: none"> - Lack of understanding - Change of ways Treatment <ul style="list-style-type: none"> - Where is it? - That doesn't work for me - Negative experience </p>

Phase One: The Building of a Haven

The building of a haven in the anorexia nervosa behaviours begins early in the disorder, but the haven or remnants of the haven may exist throughout the disorder. During this phase of the anorexia nervosa, the individual builds an attachment and a drive towards the anorexia nervosa as it increasingly becomes a haven for them, in the face of their distress.

Prior to onset, many participants felt their life was out-of-control which made them feel unsafe and vulnerable. However, within anorexia nervosa the individual is taken away from the out-of-control world, and into a world where they have control and can predict the outcome in relation to their diet, exercise and weight, creating a sense of safety and reducing vulnerability. The words of Karen reflect this process, as she notes that the sense of control she had over food and weight created a sense that she was in control of her life.

I do know it was a way for me to keep control of what was going on at the time. I couldn't control anything else in my life. This was the one way I could keep control, and as long as I could control that, then I controlled my life. (Karen)

Not only in this anorexia nervosa world is the individual in control, but they are also able to cope with distress that they were experiencing prior to onset. In the haven they are away from the threat of failure, as they are achieving in their diets and exercise, and thus creating a sense of accomplishment, purpose and worth. As Ellie's words reflect, she felt that dieting was something that she could show others that she was good at, and that would lead to other worthwhile life activities.

Although it is pretty much stupid, but I thought, it would be like I'm good at dieting, so I can show people that I can do that. Then I always thought that if I did lose weight then I would be able to do something worthwhile in my life. I thought it came in that order. (Ellie)

While Karen's words reflect the sense of accomplishment she felt in her weight, when she measured herself against others.

When you go out, you feel pretty good when you're the thinnest person. You got it all happening. You got it all under control, and that makes you really proud of the work you're doing on yourself. (Karen)

Yet the drive to be perfect still exists for some, hence it is not enough to be slightly further away from the threat of failure they have to be perfect, and in response the internal drive to continue in the haven builds. Amanda reflects on how her perfectionist tendencies combined with the effect of starvation created a drive that kept the disorder going:

I'm like a bit of a perfectionist as well, so it was that whole thing of I just wanted to get to where I wanted to be, like I didn't have a particular weight or anything in my head. I just thought I will know when I get there but because I was that malnourishment and, I think just my personality and like striving to be the best took over. I didn't think that I was achieving what I wanted to so that kept it going. (Amanda)

In the haven the individual has reduced their vulnerability to the threat of rejection, as they are moving towards being the thin pretty one, who according to society's standards is the accepted and popular one. The process of the finding a social haven in anorexia nervosa is reflected in the experience of Beth who "always strove to be in the popular group, to be one of the pretty and skinny girls", and soon found her life to be consumed by the haven that was anorexia.

I went into a school and made so many friends, and they were all anorexic, and we were all anorexic, or we wanted to be. I mean it was all I wanted to be and it became all I was. I didn't have a job. I didn't have friends outside of anorexia. I cut myself off from anyone who didn't have anything to do with it. (Beth)

As the individual perceives that society's standards of what makes a person accepted and popular is based largely on their appearance, their sense of self as a result becomes increasingly tied to their physical body, and their life revolves around how to get to their ideal. Julie, who "didn't want to ever be anything other than under 7 stone", reflects on the positive reinforcers she got as her sense of self became wrapped up in her physical body, and represent in a size.

You get those positive reinforcers in yourself, where you get the skinny legs, you get the size 8, and you go down to size 6, when you have always been size 12. (Julie)

Compliments received from others serve as an indicator that the individual is doing the right thing, and are used to justify their actions. Fiona's words reflect the process of using the feedback from others to justify her behaviour:

I mean, because I'd come from 80 odd kilos and shed 20 odd kilos, people were like "oh you look so great blah, blah, blah". So it justified what you were doing, and it made you feel good, so you kept doing what you were doing. (Fiona)

The individual continues to compare themselves to others, to measure where they are at in relation to the goal of being the thinnest, which serves to increase their drive. Beth reflects on how the process of comparison continues, even upon entering hospital, resulting in a desire to be unhealthily skinny.

And when you're in hospital everyone compares themselves to you, and it's who is the skinniest? Who is the sickest? It is a competitive thing. You idolize that person that is the skinniest or the sickest. Then someone new comes in and you have been in there for four weeks, and of course you're not going to be the sickest person any more. And you're sort of like "oh I want to be as sick as them or as thin as them". (Beth)

In relation to the threat of annihilation from others, the individual has reduced their risk as they made themselves less of a target by decreasing their physical size. The bones that begin to protrude, act as a thorny armour, keeping others away. For Lisa, the experience of sexual abuse, created a desire to disappear or fade away, which she was physically doing in anorexia:

I did experience childhood sexual abuse as a child as well, and that played a role in the way that I saw my body. I did want to be smaller and disappear to a certain degree. (Lisa)

In the anorexia nervosa haven life is simplified, the individual does not have to face life, thereby reducing the threat of life's demands consuming them. Annabelle's words reflect how the simplified life, protects her from frustration and disappointment:

When you have an eating disorder there is just the one goal, and that is to just keep losing weight. It is something that you can do. It is easier than most goals in life, where you might have to face frustration and disappointment. (Annabelle)

The haven of anorexia nervosa begins to take over the individual's life, leaving few resources left to think about other issues in life, or experience emotions. Hence, the haven acts as a means of distracting the individual from the issues and emotions that threaten to consume them. Lisa's reflects on how the disorder provided her with a source of distraction from her problems:

It was a big bundle of young confusion, depression and feelings of guilt, and then there was this thing, and I was like all “oh I can fixate on this. Yeah I’ll take it”. (Lisa)

The distraction effect of the haven, combined with positive feelings participants may experienced within the haven, means that it is a safe space, far away from the threat of internal annihilation.

The individual may also feel as if they are reducing vulnerability to the threat of annihilation, in that they are attracting the attention of others and communicating (through not eating) that they are distressed. Annabelle, who was experiencing loss and grief around the time of onset, reflects on how not eating was a means of communication.

I think like I wasn’t aware of how to tell people how I was feeling at the time, so I guess for me starting to not eat was my way of letting people know that things were not right for me. (Annabelle)

The anorexia nervosa haven is a relief from the dangerous world that was creating distress; hence the individual increasingly tries to spend more time in the haven. As a result the anorexia nervosa behaviours increase, and weight decreases. With increasing time spent in the haven, the more detached the individual becomes and the harder it becomes for them to identify that there is a problem.

Phase Two: Paradise Lost

As the disorder progresses the shine of the haven begins to fade and the shadows creep in. The increased time spent in the haven has been at the cost of the individual’s physical being, and the individual begins to feel the effects of starvation. At the physical level, the high of the haven wears off and is replaced with exhaustion, cold, hunger and physical ailments (such as, chronic fatigue and muscular neuropathy). Amanda reflects on her haven (that was giving her a high) suddenly turning bad: “I was on a high, and then you just hit a point where you are like, why am I so tired? And you get into this horrible state.”

At the cognitive level, the mind has less energy to use to function, and as a result the individual struggles with cognitive processes. For many this manifests in impaired cognitive functioning, where the individuals feels they are in a hazy or dream-like state, which is characterized by poor concentration, poor memory, severely narrowed focus,

few perceived choices, and lack of rationality. Fiona's words reflect some of the cognitive problems she experienced as a result of the disorder, and how it impaired her ability to seek help:

You don't think very straight. Like the worst thing for me was I couldn't read. Like, literally I didn't have the attention span and I didn't have the retention of the information. You're not thinking straight so you can't see it as being a problem, and you can't make decisions, so you can't decide how to go about treating it. (Fiona)

While for other individuals, difficulties with cognitive processes were manifested as distortions, in the form of body distortion and distortions in thoughts and beliefs. Amanda reflects on how starvation affected her perception of her body, in that she still saw herself as being at an unacceptable weight.

I think when you are so malnourished your mind gets more distorted. I couldn't see that I was losing weight, once I had decided I wanted to. I couldn't see that I was doing it. I guess the more malnourished I became the more distorted my concept of how I looked became, and I was still seeing myself as normal or fat. (Amanda)

Yet it is not only the effects of starvation that remove the lustre from the haven, but also the haven begins to struggle to alleviate distress. In relation to the threat of failure, although the individual is doing well at diet and exercise it is not good enough, and the success has not spread into other realms of life. For some participants the anorexia nervosa has increased their risk of failure, as due to the negative physical impact of the disorder they are unable to achieve in other areas of their life.

In relation to the threat of rejection, the compliments have stopped, the thorny armour is working too well at keeping others away, and the time spent in the haven has been at the expense of time with others, and has caused others distress. To avoid rejection the individual has pushed others away, and the individual is now alone.

In the haven the individual removed themselves from being a target by reducing their size, but in so doing they also removed themselves from life. In relation to the internal threat of annihilation, the haven no longer is able to distract the individual from their emotions and issues, a process which is reflected in Lisa's words:

Then it started to go from something that was valid, to something that wasn't working. It stopped working for me, because I was getting more miserable than when I started, and the distraction side of things wore off. (Lisa)

With the haven no longer distracting the individual from their emotions, emotions such as depression and anxiety, resurface with intensity. Beth reflects on the sadness she felt in the disorder:

I would get home and I would be in tears and hysterics, because you get so starved that you're just miserable, and you're just on the carpet crying all the time. It's just horrible. (Beth)

Using anorexia nervosa as a means of communicating distress also begins to appear to be an ineffective strategy. As Lisa's words reflect, the attention one gets upon not eating does not provide a space to communicate and address sources of distress, rather, people just want one to eat:

I was getting attention but not in the way wanted. People were asking me to eat and, I didn't want to do that, I actually wanted to talk. I guess in a way it's kind of ironic, you stop putting things in your mouth because you want to say things out of it. (Lisa)

As the haven falls to pieces, the original distress resurfaces, combined with new sources of distress created by anorexia nervosa, and the individual has fewer physical, cognitive and social resources to cope.

Phase 3: The Path to a New Haven - Recovery

As the old anorexia nervosa haven disappears, the individual increasingly wants and seeks a new haven: recovery. Yet the path to the new haven is full of barriers created by themselves, by others and by their treatment, which plays a role in keeping the individual in the disorder.

The now crumbling haven, has become all the individual knows, it is their self and their life. Recovery means letting go of the old predictable safe self and life, and taking a risk in discovering the new self and life, and it is a very daunting prospect and potentially a barrier for those on the path to a new haven. Shelley's words reflect the safety found in the anorexia nervosa:

Unless you have plenty of support and help along the way, you will just go back to the old pattern, because the old pattern, as horrible as it may be, seems safer than the other path. (Shelley)

While Beth's words reflect how the disorder became her identity and life, and notes that she has struggled to let go of it:

My eating disorder has been so attached and it has been my identity. It has been who I am. I don't know who I am without having an eating disorder. I haven't worked, well I have worked a few little jobs, but I haven't worked full time or had anything else to focus on, and I think that's a big big problem. I just haven't been ready to let go. (Beth)

The haven has also become the individual's only way of coping. Recovery involves finding new ways of coping; a difficult task for many which is put to the test when faced with stress. As a result many participants would have a lapse or relapse, when they encountered difficulties in recovery, as the old mechanisms are hard to relinquish. Annabelle reflects on how her eating disorder became her automatic coping strategy:

I think just being in the pattern of not eating, and automatically using that as a coping strategy, because every time there was a problem that would be the first thing that would come into my head. 'I'll solve this by not eating'. I think they [eating disorder behaviours] can seem like good short term solutions, but you don't want to see yourself 30 or 40 and still being in hospital. (Annabelle)

Still others struggled to find new healthy ways of coping, and entered into other unhealthy means of coping, such as other eating disorders and alcoholism. Lisa's words reflect how alcohol served to numb her anxiety caused by the recovery process.

Through various stages and successes and lack of successes in my recovery, I had problems with drinking as well. I would start drinking to mask the anxiety I felt from eating. (Lisa)

The disorder consists of very ingrained beliefs and behaviours, and the ingrained nature of the beliefs and behaviours create a barrier to recovery. Some participants experienced difficulty in breaking the rules they had created for themselves in food and weight. The process in which the rules are challenged and broken can create confusion, as Fiona noted:

It was very hard because I've been on diets for my entire life, where there was like; "You can't eat this. You're not allowed to eat this. You shouldn't be eating that and you shouldn't be eating that". For 19 years of my life, there had been that in my head and it was very hard to turn around. 'Cause everyone was like, "have chips, have chocolate, go for it", and you're like "No, hang on. This is all a bit weird." because for such a long time you've been told not to be eating certain foods or to cut back on fat or whatever, and then people were completely on the other end of the scale, going "No, no eat whatever you want". It really screws with your head. (Fiona)

At this point in the individual's journey the distress that pushed the individual into the disorder is still there, and is combined with distress created from the disorder itself. The level of distress experienced by the individual commonly manifested as anxiety or depression, and served as another barrier to recovery. Ellie reflects on her experience of depression being tied to weight gain, creating difficulty in recovery:

Well I finally put the weight on I just got really depressed because I felt so huge. Then I'd be so unhappy, I'd think of I'd rather be thin and happy. Not that I was really happy, but I'd rather be thinner and happy, than overweight. Well I felt like I was overweight and was depressed. (Ellie)

The experience of fear created another barrier to the new haven, in particular fear of the unknown, a loss of control and fear of weight gain. In the haven the individual had control, and is strongly drawn to the power and safety in the control, to lose control is to lose power and become vulnerable. In the haven one's level of control was measured in weight, hence weight gain equalled a loss of control and was therefore feared intensely. The process of recovery, and associated weight gain, involves the individual entering into a space of vulnerability, something they have been trying to avoid. Fiona reflects on how her intense anxiety over eating, would counteract progress made in hospital:

Hospital stays and psych wards are constructed in such a way that you can't help but put on weight, and that's what their main goal is, for you to put on enough weight, for you to leave, basically, it didn't really help me, because as soon as I got out, I just went straight back down again because you have these immense anxieties and these immense fears about eating. (Fiona)

Upon gaining weight, the exhaustion and impaired cognitive function the individual had experienced with the disorder decreased, and was replaced with energy and a stream of thoughts which, with increasing weight become increasingly clear. However, initially this experience can be confusing and scary for the individual, as Annabelle experienced, and may act as a barrier as the individual returns to the safe predictable haven.

I remember even when I started eating just having all this clarity and energy felt really disturbing. I didn't know what to do about it, and it was difficult. (Annabelle)

Barriers on the path to recovery exist not only within the individual, but others around them can also create barriers. One such barrier is others not understanding the

individual in the process of recovery, in particular (as Ellie reflects) understanding that recovery involves more than just weight gain.

People just presume that if you put on a few kilos, that you're going to be better, and it's not the case. The battle doesn't end when you reach a BMI of 20, well that was when I was in hospital we had to get to 20, and when I got to that the help all vanished. I was discharged. I saw the doctor very rarely because they were like "oh her weight is fine, so she is fine", whereas I was not coping at all. That's another thing to remember, that it doesn't end once you reach your weight. (Ellie)

The lack of affordable treatment available, poor treatment matching, and just poor treatment, were the three main barriers on the path to recovery created in relation to treatment. The lack of affordable treatment was a barrier experienced by many participants in differing locations, including Perth (Western Australia), Melbourne (Victoria, Australia) and North Queensland (Australia). Lisa reflects on the process of struggling to find affordable treatment, and how that effected what she brought into the room.

Well it was so hard to find any kind of counselling that was affordable. I was stuck with these options that usually didn't end up feeling incredibly personalized. I just felt they weren't real options because they were the only things I could afford. Hence, already I'm taking something into the room as a patient, which is a bit difficult I must admit. (Lisa)

Poor treatment was another barrier on the path to recovery, and was characterized by difficulties in the therapeutic relationship, which were created by a lack of knowledge, a lack of understanding, oversimplification of the individual's experiences, a lack of empathy, the gender of the professional, or presence of judgement. Kylie reflects on how the lack of knowledge about eating disorders in her health professional prevented the disorder from being identified earlier:

The lack of knowledge in professionals (like General Practitioners) that I came in contact with before things were really serious, such as, when I presented with stress and tiredness, not picking up cues and taking a line of questioning that might bring out eating disorder symptoms and behaviours. (Kylie)

Other participants felt that the treatment was not suited to them, or was not meeting their needs. This was particularly felt in relation to treatment programs that had a focus on rapid weight gain. In a program where the focus is largely on weight, to get the

individual to a weight level where therapy may be more productive, the individual may feel that their psychological needs are not being and may relapse before being at the point of entry into therapy. The pace of weight gain in these programs is also perceived as being too quick, and not providing time to allow the mind to accept the changes.

My doctor, his whole theory was, get them to a normal weight and they will start thinking better and they will lose their eating disorder, and it is true to a degree. But when you have to put on weight really drastically (like in a drastic amount really quickly), you get to that point [goal weight] but your head doesn't have time to adjust and you're still thinking eating disorder thoughts of "oh I have got to lose the weight", and you get back down. If you can do it slowly, so that you're able to accept each stage, like I am doing, you do start to think a lot clearer. It's amazing how much clearer you think and the effects that it has on your body. (Amanda)

Summary of the Phases of Maintenance

In summary, the experience of maintenance of anorexia nervosa is very dynamic, with a degree of overlap between late onset and early maintenance, as well as late maintenance and early recovery. In the early stages of the disorder the individual builds an attachment to anorexia nervosa (which continues throughout the disorder), as the disorder becomes a means of alleviating distress, and protecting against threats noted in onset. As a result the individual withdraws from the world around them, and increasingly focuses on the disorder. As the disorder progresses the shine of haven of anorexia nervosa decreases, as the individual starts experiencing the negative impact of the disorder and the difficulties noted in onset and the perceived vulnerability to threats begin to resurface. As the lustre on the haven disappears, and the sense of paradise lost grows, the individual increasing wants and seeks recovery. Yet, the path towards recovery is often filled with significant internal and external barriers that block recovery. Thereby the individual is experiencing similar or more intense distress to onset, in that the threats and vulnerability have resurfaced, but they have even less resources to cope now as anorexia nervosa has robbed the individual of physical, psychological and social resources, and there may not be suitable treatment options to match the individual's needs.

Discussion of Maintenance Findings

As noted throughout this research, findings and literature to date have significantly contributed to the understanding of anorexia nervosa, yet the strength of such contributions (in terms of understanding and implementation) has been undermined by the fact that the knowledge exists in a fragmented manner. A further appreciation not only of theories and hypotheses noted in chapter 2, but also the Distress, Threat Alleviation Model and the phases of maintenance, can be gained by reflecting on how these all tie together. Understanding gained from tying knowledge together in a meaningful manner, can in turn have a positive effect on interactions with those experiencing anorexia nervosa, and assist implementation of interventions. It is evident that, depending where an individual is in their journey of anorexia nervosa and recovery, different interactions and interventions are required.

In chapter 2, the effects of starvation on one's physical and psychological functioning and the role of this in the maintenance of anorexia nervosa were noted. The physiological impact of starvation plays a role in building of the haven, as elements of the affects of starvation reduce distress, and reduce perception of threat. In the early stages of starvation an individual may experience a 'high', which reduces distress and may act as a reinforcer of restricting behaviour. Yet as starvation progresses the individual experiences a 'numb' feeling, which can be a form of distress alleviation as an individual may feel numb instead of an emotion. As noted in chapter 2, as restriction increases, as does the preoccupation with food, this preoccupation can act as a form of distraction from threats, thereby reducing perceived vulnerability to threats.

Starvation has a negative impact on one's physical and psychological functioning; hence the impact of starvation has a significant role in the paradise lost phase of anorexia nervosa. In particular, participants were distressed by the physical ailments associated with the disorder, and how the lack of physical and cognitive resources impaired their ability to live the life they wanted to. The reduced physical and psychological resources not only distressed participants, and thereby contributed to paradise lost, but also impaired their ability to move towards recovery, and created a barrier to the new haven of recovery.

Knowledge from the social-cognitive approach predominantly assists in gaining an understanding of the building of a haven phase of maintenance. Social rewards, such as compliments about weight loss, reinforce and justify the extreme weight loss measures. While social comparison, a process originally noted in relation to onset of anorexia nervosa, increased participants drive to engage in weight loss behaviours as through this process participants felt they were not at their goal yet.

Social learning and positive reinforcements also provide insight into a barrier to the new haven. Social learning, in particular the establishment of associating of positives to weight loss, and negatives to weight gain, may contribute to the intense fear of weight gain that often creates a barrier to recovery.

At the level of family, changes in family dynamic noted in chapter 2 and earlier in this chapter, play a role in the building of a haven. In particular, changes of family dynamics reduces the perception of and vulnerability to a threat (especially of rejection and annihilation), as the individual has increased control over the interactions. This in turn reduces distress and reinforces the anorexia nervosa.

The establishment of self within anorexia nervosa is a process that not only contributes to the building of the haven in anorexia nervosa, but also creates a barrier to the new haven of recovery. Having one's sense of self and self worth, reduces one's perceived vulnerability to threats, particularly failure and rejection, as the individual feels they have a way of being, achieving and interacting with the world, as opposed to the uncertainty, which created vulnerability, experience in onset. Yet as one moves towards recovery the prospect of again having to find a sense of self and self worth is extremely daunting and overwhelming, and thereby can create a barrier to recovery.

The establishment of a sense of life-meaning manifests in the maintenance phases of anorexia nervosa, in a manner similar to that of the establishment of self. One has a reduced sense of vulnerability to the threat of failure and rejection, as one has found something that one can set and attain goals within, and in doing so one is less likely to fail, or be rejected by others because of a failure. However, as the disorder progresses and one starts to consider recovery, as with one's sense of self, the prospect of establishing another source of life-meaning is extremely daunting and overwhelming, and can create a barrier to the new haven.

As noted earlier, the experience of maintenance of anorexia nervosa is dynamic, and by understanding the different phases it becomes evident that different interactions may be needed pending where an individual is in relation to the phases. The concept of maintenance being a dynamic experience, and the need for changing interactions and intervention based on an individual's mindset has also been proposed the literature on motivational interviewing (Miller & Rollnick, 2002) and the Transtheoretical model (Prochaska, DiClemente & Norcross, 1992).

Within the TTM there is an acknowledgement that behaviour, in this case anorexia nervosa, has a function for the individual, and in order for individual to move towards change, and through the stages of change the costs need to outweigh the functions of the behaviour (Prochaska, DiClemente & Norcross, 1992). However the TTM does not provide insight into what the functions and cost of anorexia nervosa may be. The building of a haven and paradise lost phases of maintenance reflect the experience of an individual in pre-contemplator and contemplator stage respectively, and provide insight into the functions and costs of anorexia nervosa that may keep an individual in a particular stage or move them between stages.

Motivational interviewing is an intervention commonly used with individuals in pre-contemplator and contemplator stage, and involves the professional and client working collaboratively to help identify the positives (pros) and negatives (cons) of behaviour (Miller & Rollnick, 2002). Once the pros and cons are established a discrepancy can be built between the current behaviour and what one needs and wants, which can lead to change. The understanding and insight into the functions and cost of anorexia nervosa may assist the process of motivational interviewing.

Upon an individual moving towards the action stage and beyond, interventions used change to more skill and therapy based interventions, to assist the individual in making and sustaining changes (Miller & Rollnick, 2002). Although there is an acknowledgement within the TTM that the process of change is rarely linear, the model itself does not provide insight into what may contribute to an individual returning to a previous stage. The path to a new haven phase demonstrates that change in balance of functionality versus destructive aspects of the disorder is not enough to produce change, as there are internal and external barriers that exist to recovery. Thus, providing insight

into why an individual may stay in one stage, or move back to a previous stage. The barriers noted in the path to a new haven, are congruent with the literature and clinical field which note the high degree of ambivalence to treatment, difficulties in finding and accessing efficacious treatments, and high relapse rates (Cockell, Zaitsoff, & Geller, 2003; Field et al., 1997; Herzog et al., 1999; Keel & Mitchell, 1997; Olmstead, Kaplan, & Rockert, 1994).

Sufferers entering the path to a new haven phase are just as, if not more distressed, than what they were upon entering the disorder. As the disorder is their only means of addressing their needs, they cling to it and are highly fearful of letting go and facing the unknown, which is reflected in the internal battles noted in the path to a new haven phase. These internal difficulties include; fearing the unknown or loss of control, perceived safety and predictability of anorexia nervosa, difficulties in coping, and turning to other unhealthy behaviours. In being aware of these internal battles, interventions can be tailored to assist the individual in overcoming the battles, and may include increased access to motivational interviewing, skills based programs and addiction treatments.

Yet it is not only the internal battles which result in the individual clinging to anorexia nervosa, but also external barriers, such as a lack of awareness, understanding and knowledge by a number of health professionals, and lack of accessibility and affordability of treatment. These gaps could be addressed by increasing training, education and resources available regarding eating disorders to a wider range of professionals. Increased funding for existing treatment programs and for the development of new treatment programs is another form of intervention to address the gaps noted. Such interventions increase the likelihood of early identification, and enable treating professionals to provide some support while treatment options are explored.

Hence, the phases of maintenance and the Threat, Distress, Alleviation Model, compliment and build on the insights and understanding gained from the TTM and Motivational Interviewing. Such understanding and insight can enable improved interactions with individuals with anorexia nervosa, as well as treatment matching according to needs. However, as noted in previous chapters, findings are preliminary and tentative in nature. There are a number of limitations of the study that may have affected findings. One such limitation is the cognitive capacity of individuals in the maintenance of

anorexia nervosa. As noted in the literature and by participants, there is a significant reduction in cognitive capacity during the disorder, which may have affected participants' ability to accurately recall experiences during the disorder. Also for some participants a significant period of time had passed between them having anorexia nervosa, and doing the interview, which may have impeded their ability to accurately recall information.

Furthermore, as noted in the previous chapter the small sample size, and the use of the worlds of being, may have had an impact on the findings. The findings, as well as the methodological difficulties and gaps of this research may provide direction for future research. Future research could include research on a larger sample size, and variation of population, or exploration of a similar nature, but without the use of the adapted worlds of being and triangulation of theory within the interview process may be beneficial (as it may uncover any biases that may have been created by research methodology). It would also be interesting to explore whether the Threat, Distress, Alleviation Model, and its phases applies to other eating disorders.

Summary of Maintenance Findings and Discussion

As noted in the previous chapter, through the process of data analysis three levels of findings emerge, each moving closer to answering the question; what is the subjective experience of the maintenance of anorexia nervosa? The first level of findings confirmed and built on knowledge that exists in the literature, as participants generally perceived the knowledge as relevant to their experiences, and attached their own personal context to the knowledge.

In the second level of findings, participant experience was organized according to the adapted worlds of being. It was evident that a change had occurred across all worlds of being compared to onset. Participants were increasingly withdrawing from the still dangerous Umwelt and Mitwelt, yet the experiences they had in these worlds were largely in relation to their anorexia nervosa. At the level of Eigenwelt and Core the anorexia nervosa has taken over and is dominating thoughts and behaviours, and has become a sense of self, life-meaning and coping mechanism. Yet the individual has fewer physical and psychological resources and is highly distressed.

Yet these two levels of findings do not capture the dynamic nature of maintenance of anorexia nervosa, nor do they tie together experiences in a meaningful manner. In the third level of findings three phases of maintenance of anorexia nervosa were identified; Building of Haven, Paradise Lost and Path to a New Haven. The first phase (building a haven) reflects the process in which an individual becomes increasingly drawn to and attached to anorexia nervosa, as the disorder assists the management of difficulties with threats and distress noted in onset. The second phase (paradise lost) reflects the process in which an individual increasingly becomes aware of the negatives of the disorder. While the third phase (path to a new haven) reflects internal and external events that may impede an individual's ability to move towards recovery, and thereby play a role in maintaining the disorder. When an individual is moving towards paradise lost and path to a new haven, the difficulties in relation to threats and distress of onset have resurfaced, but the individual, as a result of their anorexia nervosa, has fewer resources to cope, and move towards recovery.

The findings of this research provide a detailed picture of the dynamic processes of the maintenance of anorexia nervosa, which not only captures the individual's subjective experience, but is also is congruent with the literature and field observations. In particular, these findings compliment and build upon insight and understanding from the TTM and Motivational Interviewing. The phases of maintenance and the Threat, Distress, Alleviation Model, provide insight into the processes that keep an individual in a particular stage, and move an individual between stages, such as the functions and costs of anorexia nervosa, and barriers to recovery. Such insight and understanding can improve interactions with individuals struggling with anorexia nervosa and assist implementation of treatments. However it important to remember the exploratory nature of this research which can be used as a platform for future research.

Chapter 7: Recovery Results and Discussion

Throughout this research the heterogeneity of the experience of individual's with anorexia nervosa is noted, and this heterogeneity is particularly evident in the process and experience of treatment and recovery from anorexia nervosa. Participants were asked to comment on their experience of recovery from anorexia nervosa, as well as comment on the relevance of different treatment rationale and treatments to their experience. Participants' responses to rationale and treatment varied, with participants generally perceiving knowledge of treatment and recovery as slightly less relevant to their experiences compared with aetiology and maintenance knowledge. Despite heterogeneity in the confirmation and clarification of knowledge and treatments in the field, there were similarities of experiences at the different levels of worlds of being. In recovery, the external worlds of Umwelt and Mitwelt appear safer, enabling the individual to reconnect and interact with these worlds. At the internal levels of Eigenwelt and Core participants' excessive focus on anorexia nervosa, which was noted in maintenance, is replaced with healthy alternative thought processes, activities and ways of coping. As with the experience of maintenance, the experience of recovery is dynamic in that it changes over time, and there appears to be four interrelating phases of recovery: Overcoming Denial, Building Motivation, Creation of Safety, and Creating a New Framework. These phases, as well as the Distress, Threat, Alleviation Model, appear to complement the literature, and tie it together with participants experience in a meaningful manner. This increased understanding of anorexia nervosa may assist the provision of efficacious treatment, by improving ability to match treatment to individual's needs and experiences.

Confirmation and Clarification of Pre-existing Pieces:

Relevance of recovery pieces to participant experiences

In previous chapters on findings of the relevance of aetiology and maintenance pieces, it was evident that despite variations in experience participants generally found knowledge from the field captured their experience. However, in recovery it appears participants found knowledge from the field, and their corresponding treatments slightly less relevant to their experiences. As evident in table 12 there was a high degree of variance in perceived relevance of treatment to participants' experience. The observed

variation in responses appears to be largely due to variations in treatments available, experience of treatment, and needs of the participant.

Table 12: Summary of Perceived Relevance Recovery of Recovery Pieces

	Biological	Social-cognitive	Family	Existential	Total
Agree	8 (31%)	11 (42%)	2 (15%)	12 (92%)	34 (44%)
Partial	12 (46%)	9 (35%)	3 (23%)	1 (8%)	23 (29%)
Disagree	6 (23%)	6 (23%)	8 (62%)	0 (0%)	21 (27%)
Total	26	26	13	13	78

Biological

The first piece in recovery from the biological paradigm that participants were asked to consider was the role of weight restoration, and the implications of this on cognitive and physical resources for recovery. Three participants found this piece relevant to their experiences, noting that weight restoration was imperative in their recovery as it enabled them to have the physical and cognitive resources to engage in treatment. Beth reflects on a parasite theory, whereby the eating disorder is a parasite that feeds off the individual, and with increasing weight gain, one has increasing strength to fight the parasite:

It gets easier, the higher your weight gets. Its always going to be hard, by no means is it ever easy. As you lose weight, the parasite gets bigger, the anorexic thoughts get stronger and you lose weight, and you lose ground. As you put on the weight, you start to see a little bit more clearly. (Beth)

Nine participants partially agreed with this piece noting that their ability to function and engage in treatment was assisted by weight gain, but also noting that weight gain alone is not enough for recovery, and this is reflected in Fiona's words: "I don't think it is specifically just the restoration of weight. It makes you think a whole lot clearer, but it doesn't address underlying issues".

One participant (Ellie) did not find the theory relevant, reporting that weight gain impeded recovery, as with weight gain she would become depressed, and more driven towards her anorexia nervosa.

Participants were also asked to consider the role of medication in the restoration of physiological imbalances that may have been present before the disorder, or created by

the disorder. The level of perceived relevance of the role of medication in recovery, with eight participants either agreeing or partially agreeing, is higher than what one would expect based on the findings discussed in chapter 3, which indicated little evidence for the role of medication in recovery. Five participants believed medication played a major role in their recovery. These participants noted that with the depressive nature of the disorder, and the anxiety associated with recovery, medication is needed to assist the management emotions.

Three participants partially agreed with the piece, suggesting that medication played a role in recovery from anorexia nervosa, but medication was part of a broader treatment plan, and can not be the sole treatment, as noted by Fiona:

I think it's helpful. I'm still on antidepressants, and its four years later. That helps to a degree, but it can't be solely medication. I mean medication is good, if you are in fact depressed, and it has contributed, but you also need to have a counsellor, or some other professional, because you don't pose the questions that need to be asked of yourself. (Fiona)

Five participants disagreed with the role of medication in recovery from anorexia nervosa. Four of the five noted they had tried medication, but felt it didn't help them or, in Lisa's case, made them worse.

I actually believe that the Prozac made me worse. I felt after two weeks of taking it I was ready to kill myself, well and truly. Make it quick rather than doing it slowly through disordered eating or starving. (Lisa)

Bree discussed her beliefs that medication does not address the issue, and counselling is a more effective means of addressing the underlying causes:

As far as giving them drugs to treat depression I don't think that's a really good idea, because I honestly don't think that psychiatric drugs really, treat the issues that the person is facing. It's like a band aid approach. I think the best way to treat it is to get counselling, and that the issues that are deep down are brought to the front, and sometimes we don't know what they are anyway. (Bree)

Social-Cognitive

In chapter 2 it was noted that through society an individual learns many messages about food, weight and body that may play a role in the development of anorexia nervosa. Participants were asked to consider the role of treatments aimed at challenging and changing these thoughts. Nine participants found this piece relevant to their experience,

noting the importance of challenging the beliefs behind the disorder in the process of recovery. The process of challenging thoughts and beliefs involved challenging not only those thoughts contributing to the anorexia nervosa, but also thoughts contributing to depression and low self worth. For participants the challenging and changing of thoughts largely occurred through treatment, or the actions of those around them. Lisa noted the process of challenging beliefs was empowering, and suited her self determined nature:

I think that's the reason why I really liked the counselling that I stuck with because it was an intervention that was quite empowering. For the first time you could intervene on negative self talk. You really recognize it and its like "Oh I change that. Oh". It's a whole new way of doing things and it is really good. It's quite a tool, and it really gives you a tool to work with. (Lisa)

Beth, partially agreed with the piece noting that the challenging and changing of beliefs could only occur when the individual felt safe, and if done by the wrong person or at the wrong time, resistance to change would build: "Challenging my inner beliefs is really hard, and if anyone else tries to do it, I will just dig my heels in and won't let go".

Three participants disagreed with theory, noting that the disorder stemmed from emotions or control, rather than specific thoughts or beliefs (as illustrated by Annabelle), or noting that they were not open to being challenged throughout the disorder.

I guess, it didn't play a very big role for me just because I wasn't trying to lose weight in the first place to look more attractive or fit in with that. That was really secondary. So probably not. (Annabelle)

As the media is frequently blamed for contributing to anorexia nervosa, interventions have been developed to reduce the impact of the media. Participants were asked to reflect on the relevance of such interventions in their experience of recovery from anorexia nervosa. Two participants found the theory relevant, noting that throughout the course of the disorder they focused "too much" on the media, and that needed to be challenged as part of recovery.

Eight participants partially agreed with the need for treatment addressing the impact of the media on the individual. Some participants noted that while challenging the media's portrayal of the ideal would help, it would need to be in the context of building self-esteem. While other participants noted that such treatment would only be beneficial

to those whose disorder stemmed from the media, or that media challenging needed to occur at a societal level or as prevention, rather than treatment (as noted by Fiona).

That works if in fact the person's anorexia stemmed from that sort of thing. I'm more inclined to think it's a better idea that we do that as an entire society, not to leave it to "oh she's got anorexia now, lets deal with that". (Fiona)

Three participants disagreed with the need for treatment addressing the impact of the media on the individual. These participants noted that the media didn't contribute significantly to their disorder, or that they would not have been open to such treatment. Mel reflects on how in the depth of the disorder she was not open to treatment that challenged her:

Actually I think when some is in the deep stages of anorexia, you don't want help, and you don't want anyone to interfere. Someone telling you that, well I don't think they will really take any notice. (Mel)

Family

Blurring of roles and boundaries in the family, as well as poor communication has been mooted to contribute to the aetiology of anorexia nervosa, and have been the focus of many forms of family therapy (Bruch, 1973, 1978; Hartman, 2002; Minuchin, Rosman, & Baker, 1978). Participants were asked to reflect on the role of establishing boundaries and improving communication with the family through family therapy in the journey to recovery. Two participants agreed with the piece suggesting the importance of family therapy in recovery, noting that, through family therapy, increased communication and understanding within the family developed. Amanda reflected on her positive experience of family therapy, which was assisted by its timing and her persistence:

Family therapy has been essential, and I think it's something you have got to stick at. We have tried it a few times, and it was useless. It has got to be at the right time as well, but communication and the boundaries are the main things that came up. (Amanda)

Three participants partially agreed with the role of family therapy in recovery. These participants noted that due to various reasons they did not enter family therapy, but did work on family issues in individual therapy, which was then used to increase communication and understanding in the family. Annabelle reflects on how in individual therapy she learnt strategies of how to interact with her family:

I think because I was a bit older too (more like 18 or 19), I think my psychiatrist was more encouraging of helping me in our individual sessions, and getting me to try and do it with mum at home. I think it has been important, just to be able to stand up for myself a little bit more, and to let her know when something she is doing is bothering me. (Annabelle)

Eight participants disagreed with the role of family therapy in recovery, and this was largely due to themselves or other family members not being open or suitable for family therapy. Mel reflects on her brief experience of family therapy, which was cut short as her father did not believe in therapy:

I know with our family we tried family counselling. I think we only had about two or three sessions, but that was mainly because my dad wasn't for talking to someone else. You don't tell someone else outside the family your problems. So it was a bit pointless. (Mel)

Two participants noted that by the time their anorexia nervosa developed it was too late for family therapy, as they were mature and independent, or felt that their family dynamics were too ingrained to change through therapy. Karen speaks on her perception of family therapy:

I think with a lot of that it's too late, because family structure is set up since birth, and just because there is a problem now it's not going to change if you sit down and have therapy. You can't change a lifetime of the way the family has behaved. You can't change that, in my opinion, you're really kicking a dead horse with that one. (Karen)

While other participants felt that the family was not a contributor to the disorder, and did not want to put their family through any blame that may occur in family therapy. Beth reflects on her experience of family therapy, and how she didn't want her family blamed for her eating disorder:

The family therapy we did have, I ended up in tears and just walking out, because I couldn't cope with it. It was very confronting. I didn't want my parents to feel like they were responsible for it. I didn't want them to have that guilt. (Beth)

These observations are congruent with concerns raised in chapter 3, that some forms of family therapy can be confronting and associated with blame and guilt.

Existential

As a lack of life-meaning may contribute to the onset of anorexia nervosa, and the disorder may be maintained by the individual feeling it is a source of life-meaning,

participants were asked to consider the role of developing a new source of life-meaning, or means of coping with a lack of life-meaning, in recovery. Twelve participants agreed with the piece, noting that an aspect of recovery involved developing life-meaning and means of coping. Participants established meaning by setting goals away from the anorexia nervosa, engaging in alternate activities, and reconnecting with nature. Beth reflects on the strength she draws when her focus moved away from her anorexia: “When I focus on other things, other than my eating disorder, I feel like I can step away from it, and I feel I get a bit stronger and it gets a bit smaller”.

Participants also noted the need to develop new coping mechanisms, as without them it is easy to revert back to old behaviours. This process is reflected in the words of Ellie: “And also finding coping mechanisms is important because otherwise you rely on food to cope with everything; good days, bad days” (Ellie).

One participant (Julie) partially agreed with the existential theory, noting that without stability at a physiological level one is unable to consider life-meaning.

I think that’s very important, but obviously without the biological side you are not going to do that. You are not going to do it without having some program of restoring weight, and knowing the benefits that come with the restored weight. (Julie)

Summary of Confirmation and Clarification of Recovery Pieces

There is a high degree of heterogeneity in the experience of anorexia nervosa, and this is evident in the variability of perception of the rationale of treatment, and the treatment itself. Participants particularly found the role of weight restoration and the development of life-meaning and coping relevant to their experience of recovery. Yet more variability was observed in responses to the role of medication, media literacy, and family therapy. When participants did not find the treatment rationale and treatment itself relevant, or only partially relevant, to their experiences, it was generally based on; an acknowledgement of the complexity of processes involved in recovery, the proposed treatment did not match their experience of what was contributing to the disorder or their circumstances at the time of entering treatment, or the participant had negative experience of that treatment. However, participants’ experience of recovery from anorexia nervosa stems beyond that noted in relation to treatments, and treatment rationale.

Organization of Recovery Pieces: Theory and Experience

Upon organizing pieces of knowledge and experience into the adapted worlds of being, the heterogeneity of experience observed in relation to treatment and treatment rationale, reduced. Through the process of recovery participants began to perceive their Umwelt and Mitwelt as safe, which enabled them to reconnect with and navigate these worlds. While at the level of Eigenwelt and Core, the anorexia nervosa no longer dominates, and instead is replaced with healthy means of thinking, coping and behaving. As the anorexia nervosa is replaced with healthy alternatives, the individual has more physical and psychological resources (to cope with life demands and stressors), and is able to define themselves and their life-meaning away from anorexia nervosa.

Umwelt

In recovery, participants' Umwelt was generally characterized by positive environment change, and for the majority of participants, treatment facilities became part of their Umwelt. Through environment change and treatment participants no longer perceived or experienced Umwelt as unsafe or dangerous, which in turn enabled them to reconnect with their world.

Environment

Outside of the treatment environment eight participants experienced significant environmental change, which was different to changes or transition noted in onset and maintenance, as changes in recovery had a positive effect on the individual and resulted in a reconnection with Umwelt. For six participants this involved a physical change in environment in the form of moving home, travelling, or a change of job. Change in environment led to reduced pressure and negatives experienced in the Umwelt, and increased positives experiences in the Umwelt. Amanda, who had to move across the country to get access to treatment, reflects on how the move helped her:

I think also, for me I'd have to say, the move probably has been good as well, because in Perth, I have been there for so many years. It's like the sick place, where I have been sick and I have stayed sick. I think that's helped me to come over here because it has kind of broken that cycle. (Amanda)

Reconnecting with nature is another form of changing one's environment which appeared to be beneficial for two participants (Shelley and Karen).

I think people heal better around nature, whether that's near the beach and you go swimming. But somehow the spirit comes out, and you start to laugh again. So you need to be in the spirit of nature to bring your spirit out, and that helps lead you towards a bigger joy. (Karen)

As indicated by Karen's quote, reconnecting with nature created a sense of healing, and a different appreciation of beauty, which in turn reduces self judgement.

Treatment

Treatment refers to the entering into some form of treatment environment, which in turn played a role in recovery, was experienced by fourteen participants, and took the form of either medical or therapy based treatments. Medical treatment refers to medical based treatments, such as medication, hospitalization, and naso-gastric tube. Ten participants experienced some form of medical based treatments, some of which noted that although at the time did not like or agree with the medical intervention, in hindsight saw it as an integral step in their recovery. For example Kylie, who came to the acceptance that she needed hospitalization or she would die:

I needed to have the control taken away from me otherwise I would've died. I don't remember at the time feeling really trapped or enclosed or I guess controlled by the powers that be, in the treatment, but a different mindset might interpret it in a different way. I saw it more as, once I'd accepted the illness and the seriousness of it, as these people are trying to help and trying to do what is best for me. (Kylie)

Therapy based treatment was another form of treatment experienced by nine participants, and included interactions with psychologists, counsellors, dieticians and group based programs. These treatment environments provided participants with a safe space to take risks, and engage in challenging and changing thoughts and behaviour.

Mitwelt

Participants experience at the level of Mitwelt parallels that of Umwelt, in that as participants moved towards recovery they perceived their Mitwelt as less dangerous, and were able to reconnect with their Mitwelt in a positive way. The experience of safety and positive interactions enabled the individual to take risks, and develop skills in interacting with the world in a healthy manner. These changes in experience of Mitwelt were experienced by all participants, and predominantly occurred in relation to treatment providers, family and peers.

Treatment

At the level of treatment service and provision, thirteen participants described the forming of a positive connection with a variety of different treatment providers (counsellors, psychologists, psychiatrists, GPs, dieticians, nurses and spiritual healers) in their recovery. A number of characteristics of this connection made it play a positive role in recovery, including: trust, caring, compassion, knowledge, understanding, support, encouragement, challenge and flexibility. The positive therapeutic relationship created safety for the individual to try new skills, explore issues, and build self worth. Annabelle reflects on how her relationship with her psychiatrist helped her open up:

I guess just having someone to talk to. I felt like someone understood, instead of feeling so alone, and having someone really encourage me to talk about what I was feeling. I guess, for me, I was communicating what I needed through not eating, so it was important for me to learn to do that through words, and talking to people instead. (Annabelle)

Family

At the level of family, nine participants reconnected with their family, and two disconnected from their family on the path towards recovery. Reconnection involved an increased ability to communicate with the family, and a sense that the family is supportive, accepting and understanding. This process occurred in family therapy sessions or individual therapy sessions with the focus on improving the individual's relationship with the family. Restoration of these relationships provided participants with increased support and strength in their journey of recovery. For example, Amanda through family therapy, developed a positive and supportive relationship with her brother, where previously there was tension:

My brother, for years and years, we have not had the best relationship since I have gotten sick, because I wouldn't talk a lot and he would get angry at me for not talking. He just didn't understand my condition, but when he came over here, in one session he understood, and we have just the best relationship now. We can talk. He is who he is, but he understands where I am at, and who I am. (Amanda)

Two participants described a process of reducing their connection to their family, in the form of moving away from them, or paying less attention to messages they conveyed. This was due to the perceived negative influence the family was having on the

individual. Bree reflected on how her purging behaviour was spurred by her mother's expectations, and upon moving out she was able to reduce purging behaviour:

I know my mother had a lot of influence, because when I was at home I used to get up in the morning to fit jogging in before work. There were times when I didn't want to do it anymore but it was almost as if this voice (and sometimes I felt like this voice was my mother), because it was like "oh well when I get my own home, I won't have to do this any more", and it was almost like she expected me to do this. So I did it because that was expected of me. Then when I did move out of home ... I started to give up things. (Bree)

By reducing the contact with family participants developed increased self acceptance, reduced pressure and negative self talk, which assisted them in recovering from anorexia nervosa.

Peers

At the level of peers, seven participants noted the role of the forming of positive connection with peers as part of their recovery. Fiona, noted how connecting with her peers helped her recovery: "I had a lot of supports from some people that made me feel better about myself, which was the core thing [of recovery]". Building positive connections with peers assisted participants in establishing a 'normal' lifestyle, and also assisted in building their sense of self and self worth.

Eigenwelt

The Eigenwelt of recovery is significantly different from that experienced in maintenance. Participants have moved from being physically exhausted and highly emotional to having significantly more physical resources, as well as having an improved ability to manage emotions. Anorexia nervosa no longer dominates cognitions and behaviours, and is replaced with a more positive and healthy ways of thinking and behaving.

Biological

At the level of biology the role of improved physiological functioning, and in turn improved cognitive and emotional functioning, be it through weight restoration or medication was noted by all participants. Fourteen participants noted that weight restoration enabled them to think more clearly, which in turn improved their capacity to engage in treatment and explore psychological processes and issues. Mel notes that with

weight gain she could think clearer and felt better, which enabled her to accept weight gain.

Once I put on the weight, my menstrual cycle started again (because that had stopped) and then when I had therapy I could [think]. I could see more reason in things. I put on the weight and I wasn't happy with the weight gain, but I sort of accepted it and I did feel better in ways. (Mel)

However, there was significant variation in how weight restoration was achieved and experienced. A number of participants experienced rapid weight gain, be it through hospitalization or binge/purge behaviour. This was a challenging experience for many participants, and resulted in some rebounding back to anorexia nervosa behaviours and weight loss. While, some participants, such as Amanda, noted the importance of slow weight gain to enable the mind to adjust and accept the changes:

They just have the right attitude to treatment, where yes it is a slower process of weight gain and everything and that but its a lot better because my brain can keep up. (Amanda)

Eight participants also noted that medication played a role in improving their ability to think, and manage emotions. Beth noted the importance of medication in her recovery journey: "Medication was another big turning point, because when I started on antidepressants within four weeks I was a different person. I was so grateful for antidepressants". Improvements in mood and thought associated with medication in turn enabled participants to engage in treatment, and challenge and change eating disorder behaviour.

Yet it is not only positive physiological change that played a role in recovery, as noted in previous chapter the negative impact of the disorder can serve as a motivator towards recovery. Three participants noted that they experienced lasting physiological difficulties as a result of their anorexia nervosa, and they use this as a reminder not to return to anorexia nervosa behaviours.

Cognition

In maintenance anorexia nervosa dominated thought processes, hence it is not surprising that in recovery all fifteen participants described changes in their thought processes as part of their journey. These changes in thought processes took the form of

becoming aware of thoughts, developing a desire to change (not only thoughts but behaviour) and actively changing in thought processes.

Awareness refers the individual becoming aware of thoughts and processes that perpetuate or trigger the anorexia nervosa or negative emotions. Prior to this point the individual experienced the thoughts but may not have been aware of their frequency, nature (for example, rational or irrational) or impact. Awareness developed both with professional help (as noted by Fiona), or without professional help.

I found someone [a psychiatrist] that I really liked, and they turned it around as well. They helped me get a better understanding of what was going on within my head, and to actually go “well, I don’t want to be like that”. (Fiona)

Fiona’s quote also captures a sense that she did not like the thoughts she experienced and wanted to change them, which is a reflection of motivation. Motivation involved the participant not only being aware of the thoughts, processes and behaviours, but wanting to change them. For some participants awareness and motivation developed over time, while for others they experienced a point of determination.

Yet the process of change stems significantly beyond awareness and motivation. The process and product of change varied significantly from participant to participant, and included: overcoming denial, learning how to control or eliminate negative self talk, changing in perception of life, learning new skills, becoming more responsible, and focusing on solutions. For Issabella, change involved learning about herself and the disorder:

That was where I got my real treatment. They just taught me what the condition is really about, and they helped me to understand myself and the condition. They also helped me to define myself, and taught me techniques of how to handle it [anorexia nervosa]. (Issabella)

For Lisa, change involved taking an active stance in life rather than getting stuck in negative thinking:

Interrupting negative self talk, and all this kind of misery, and interrupting it with a solution. That helped me a lot with the meaning of life. I started getting a bit more control. It stopped being like things were happening to me, and it was like I was actually participating in it. [In the past] I’d just get all torn up about it and depressed. I’d think “if this is the way it is then who cares if I die”, but now I can stop myself. I can go well that’s really ridiculous because rather than starving,

you can actually do a bit of action and try and have more positive influence on people around you. (Lisa)

Interactions in the Mitwelt tended to trigger and facilitate the process of cognitive change. These interactions would include therapy based interactions (such as CBT), as well as support and encouragement by treating professionals, family and peers. One participant (Shelley) turned to self-help books to assist her in challenging and changing thoughts, particularly in relation to negative thinking and development of self:

One thing I always didn't grow up with was messages saying you are good enough. So in the process of recovery I worked on creating those messages within myself. I read a lot of books. (Shelley)

Emotions

In the maintenance of anorexia nervosa a number of participants struggled with depression, anxiety as well as other emotions, such as guilt, shame and anger. In recovery participants noted that they became increasingly aware of their emotions, and were able to manage these emotions.

In relation to depression eight participants noted that their levels of depression decreased (due to weight restoration, medication, lifestyle change or cognitive changes), and they began to feel happy. The reduction in depression symptoms served as a motivator to continue along the recovery path.

Six participants noted that in process of recovery they developed an ability to face their fears and manage anxiety, which resulted in a reduction of anxiety levels. Bree notes the importance of addressing fears on one's journey to recovery:

Facing those fears, and that comes out in counselling. You have to challenge them [those fears] because they are constantly coming up, and that's what will help the person to start eating, and on the road to recovery. Absolutely. (Bree)

A reduction in anxiety levels enabled participants to take risks that are part of recovery, and interact with others.

Behaviour

In maintenance, participants' behaviours largely revolved around anorexia nervosa, or other eating disorders or addictions. Behaviour change was experienced by all participants as in recovery these behaviours had to cease, but only eleven participants described the process of change directly.

Ten participants described a process of actively trying to develop new behavioural patterns, and in doing so reduce their focus on, and desire to engage in old anorexia nervosa patterns. An element of behavioural change involved finding balance, and engaging in new activities in a healthy manner (as opposed to becoming obsessed or engaging in anorexia nervosa behaviours). Activities that participants started to reconnect with or tried, included: art, spending time with nature, meditation, cooking, and reading. For example, Lisa in her journey towards recovery reconnected with art and music:

I was very interested in music and art, and becoming the musician and creating a lot of paintings. I'm still an artist now. The music and art gave me goals, and that was really good. I went on to continue studying in the arts, and that was really good. (Lisa)

Four participants described making conscious attempts to break old behavioural patterns that were associated with the disorder, which included breaking rituals, removing scales and removing media. Behavioural changes, be it breaking old patterns or creating new, tended to disconfirm anorexia nervosa thoughts, or suggested the positives of recovery.

Core

In maintenance, Core was dominated by anorexia nervosa, but as the individual moved towards recovery the presence of anorexia nervosa in the Core was significantly reduced for all participants. As the presence of anorexia nervosa in Core is significantly reduced, space is created for the individual to develop a positive sense of self, alternative sources of life-meaning and means to cope with life demands and stressors.

Self

Twelve participants described experiences of developing a new identity and developing a sense of self worth in their recovery journey. In other words, through the process of recovery participants began to define who they are, and feel good about themselves. As noted in the previous chapter the process of developing self and self worth was very daunting and fear provoking for participants. However, as evident in this chapter the process of developing self and self worth was assisted by experiences in all worlds of being, including; creation of safe environment, positive interactions, change in thought processes and reduced negative emotions. The process of developing self and self worth is reflected in Karen's words:

I think friends the love of friends, in the group, and the support I gathered out of school with a group of friends that just loved me for being me. They liked me, and when around them I was able to start bringing out my personality again. Then I gathered self esteem, and thought that I was ok. (Karen)

Life-meaning

In the maintenance of anorexia nervosa eleven participants noted that the disorder provided a source of life-meaning. In the process of recovery all fifteen participants developed a need and desire for, and engaged in the process of exploring and developing an alternate source of life-meaning. This process would vary from participant to participant, but included considering and establishing career goals, exploring and interacting with the world around, considering and engaging in new activities, and connecting with others. Ellie in her journey towards recovery began to establish life-meaning in connecting with others:

Helping others, like volunteer work, made a big difference because I had reason to get up, and it wasn't just to lose weight, and it was to help others. Then if you can focus on others for awhile then you don't have to think about yourself all the time, about how you are losing weight or not losing weight, and so that made a difference. (Ellie)

As noted in the words of Ellie, through developing an alternative source of life-meaning, the individual develops a different perspective of life, and focuses on things other than anorexia nervosa.

Coping

Eleven participants noted that recovery involved establishing new coping mechanisms, which the individual would turn to when distressed as opposed to anorexia nervosa. Annabelle was one such participant who described establishing new ways of coping: "I think it's definitely important to have other ways of coping, with feelings or problems that don't involve dieting or losing weight". New coping mechanism that participants found particularly beneficial included communicating one's difficulties, spiritual and creative pursuits, time out, and self care.

Summary of Pieces from Theory and Experience

It is evident that participants experience in recovery is significantly different from that of onset and maintenance. The dangerous Umwelt and Mitwelt, has been replaced with safety and positive experiences and connections at a number of levels. The chaotic

Eigenwelt and Core that was dominated by anorexia nervosa, exhaustion and emotions, has now stabilized and is characterized by healthier ways of thinking, behaving and coping. The individual no longer defines their self and life-meaning in anorexia nervosa, rather they have developed or are in pursuit of development of self and life-meaning. Yet recovery is a journey which occurs over time, and experiences in the adapted worlds of being primarily captures the end point, rather than the journey and interactions that occur to move an individual along in their journey.

Meaningfully Tying Pieces Together: Phases of Recovery

Recovery, like maintenance of anorexia nervosa, is a dynamic experience which has a degree of overlap with the phases of maintenance. There appears to be four main phases of recovery (summarized in table 13); Overcoming Denial, Building Motivation, Creation of Safety and Creating a New Framework. In the first phase the individual comes to a realization that they have a serious disorder, which they are responsible for changing. In the building motivation phase, which is ongoing throughout recovery, the individual develops and builds a desire to recover from anorexia nervosa. In creation of safety, the individual develops a sense of safety, which in turn enables them to begin to engage in the final phase of recovery. Phase four, and the most heterogeneous phases, involves letting go of the old anorexia nervosa framework and building a new. Both internal and external factors and experiences assisted participants in their journey through the phases of recovery.

Table 13: Phases of Recovery

Experience	Categories	Participants	Processes of assistance
<i>Overcoming Denial</i>	Presence	7	Treatment entry & process, others, life, negative impact.
	Seriousness	4	
	Change	7	
<i>Building Motivation</i>	Others	7	Maturity, negative impact, support, treatment.
	Negatives	9	
	Life-meaning	15	
<i>Creation of Safety</i>	Environment	3	Reduce pressure, away from western, remove negative influence, empathy, patience, understanding, structure.
	Nature	2	
	Family	6	
	Support	8	
	Good therapeutic relationship	12	
<i>Creating a new framework</i> Cognition	Weight restore	7	Reduce emotional distress, safety, support, therapy, goal setting, risk taking, binge/bulimia, action of role models.
	Slow pace	8	
	Challenge	13	
	Education	7	
	Understanding	7	
	Life-meaning	15	
	Self	8	
	World perception	7	
Emotions	Control negative mind, challenge fear	14	Safety, support, acceptance.
	Medication	8	
Behaviour	Change/break routine	13	Safety, support, motivation.
	Normality	5	
Cope	Cope	6	Safety, support, resources, skills, goal setting.
	Creative	2	
	Communication	3	
	Life-Meaning	15	

Overcoming Denial

The first phase of recovery involved overcoming denial, which refers to the process by which the individual realizes, not only that they have anorexia nervosa, but also that it is a serious disorder in which self motivated change is needed in order for recovery to be achieved. Fourteen participants noted experiencing overcoming at least

one form of denial (presence, seriousness, and need for change) as a turning point in their recovery. The process of overcoming denial made participants more open to recovery, and increased their motivation for change.

The first form of overcoming denial, noted by seven participants was the realization of the presence of anorexia nervosa. Prior to this point the individual may have been detached from the disorder or aware something was wrong, but not realized it was anorexia nervosa. Amanda reflects on how, although she felt something was wrong with herself, she struggled to attribute it to the presence of an eating disorder:

I admitted that I knew something was wrong, because I was feeling horrible. It's funny because I could never relate it to weight or exercise or anything I was doing. (Amanda)

For other participants an element of overcoming denial was not only recognizing that they had anorexia nervosa, but also that the disorder is serious and potentially life-threatening, and thereby requiring treatment. Prior to this point in time, the individual may realize they have anorexia nervosa, but may not consider the long term negative impact of the disorder; and as a result, the individual may have refused or resisted treatment. Kylie's words reflect a realization of the seriousness of anorexia nervosa, in particular realizing that she could die:

Overcoming the denial, developing an acceptance that I was really unwell, that my life was at stake, that this was a serious illness, and that I deserved treatment for it. (Kylie)

The third and final form of overcoming denial involves the acknowledgement of a need to change, and one's own personal responsibility for creating change. Prior to this point the individual may be in treatment, but not taking an active role in implementing what the treatment covers. Bree's words reflect a realization that if she did not make the change and eat, her life would not change:

At that time in my life, I remember thinking "If I don't change my life, I am going to stay sick, and confined to a flat. This is going to be my life, until I start to eat". (Bree)

Processes that Assisted Overcoming Denial

The process of overcoming denial was difficult and confronting for many participants. A number of factors and experiences, both internal and external, prompted the process of overcoming denial.

Entering treatment itself for some participants triggered the process of overcoming denial, particularly denial of presence and seriousness of anorexia nervosa. Entering treatment provides concrete evidence that the individual is struggling with a disorder, that is serious and needing professional help.

While for other participants treatment (such as CBT, psycho-education or counselling) triggered an overcoming of denial, as these intervention challenged previously held thoughts and beliefs regarding anorexia nervosa. These forms of treatment particularly assisted the process of overcoming denial surrounding the seriousness of the disorder, and the responsibility for change.

Yet interaction with treatment providers was not the only interaction that assisted participants in overcoming denial, the action of other people (such as family, friends and strangers) also assisted the process of overcoming denial. The actions of others that assisted overcoming denial included; the active showing of concern, bringing attention to the participants' actions and bringing attention participants' appearance. Bree reflects on how the words of strangers drew her attention to how she looked in the eyes of others, and this in turn assisted the process of overcoming denial:

I also remember one day these guys called out to me one day in the street. I was in a park or something, and they go, "Oh she's anorexic. God she looks ugly". That really hit me, like, "my goodness, they would not be saying that. That's the truth". Like it was the truth coming at me. (Bree)

Yet it is not only interactions with others that can facilitate overcoming denial, internal experiences can also facilitate overcoming denial, including the experience of the negative impact of anorexia nervosa. As the negatives of the disorder build up, in particular the physical impact of the disorder, it becomes difficult for the individual to continue to deny the presence and seriousness of the disorder. Beth reflects on the physical and psychological impact the disorder had on her, which led to her recognition of a need to change:

I had muscular neuropathy, so I couldn't feel my legs. I was having massive pains in my back from all the muscle wastage and I couldn't sit on the chair any longer. I'm like I can't do it. I can't do it any more. I would get home and I would be in tears and hysterics, because you so starved that you're just miserable, and you're just on the carpet crying all the time. It's just horrible. So mum made an appointment to see a GP [General Practitioner]. (Beth)

Annabelle reflects on how the negative physical consequences of the anorexia, helped her realize the seriousness of the disorder, which in turn made her open to entering treatment:

I think I realized I was just feeling tired all the time and really unhappy. It wasn't like mum forced me to go, I was ready to go and have treatment myself, just because the physical consequences were so awful. (Annabelle)

Anorexia nervosa is a disorder that consumes the individual's life, and at times the individual faces circumstances in which the demands of the disorder conflict with other life demands. As a result of this conflict of demands, the individual is forced to acknowledge presence of the disorder, and begins to develop an awareness of a need for change.

Building Motivation

The first phase of recovery involves the individual recognizing there is a serious problem, in which they are responsible for change. The second phase in recovery, which continues throughout the recovery journey, involves the individual developing and building motivation to change and recover. All participants reported developing a desire to recover and a desire to let go of anorexia nervosa. At times their motivation would waver, but in the end it helped pull them through. A number of factors played a role in developing and building motivation, some of which also played a role in overcoming denial.

One such factor noted to assist in overcoming denial, which also was a source of motivation was the physical and psychological impact of anorexia nervosa. Fiona reflects on how she was motivated by becoming frustrated with the negative impact of the disorder.

I just got to this point where I was sick and tired of not being able to do the things that I wanted to do, and I caught sight of myself in the mirror a couple of times sort of off guard, and went "Oh my god! Who the hell is that? What am I doing looking like I'm 60 years old?" (Fiona)

Still others were motivated towards recovery as they were sick of the negatives associated with the treatment of anorexia nervosa, in particular hospital treatment. Ellie, who had a negative experience in hospital, when asked what helped her in recovery noted how her hospital experience served as a source of motivation. “Well hospital in a negative way, in that I thought; I never want to be here again”. Ellie was also, like other participants, motivated to recover, not only due to the negative impact of the disorder on her, but also on those surrounding her.

There was my family, because they were so nice to me, and I could see how upset I’d made them, and I didn’t want to put them through it. I finally decided that it wasn’t worth living life like that. (Ellie)

As indicated by Ellie’s quote other people around the individual (be it family, friends, treating professionals or strangers) also provided a source of motivation. A number of participants during their experience of treatment encountered individuals who had been suffering from the disorder for extended periods of time. Some participants, such as Kylie, used this experience to motivate themselves, as they did not want to be like that:

Being in hospital, with people who were twice my age and still struggling with an eating disorder, they taught you things that you didn’t necessarily know before you came in contact with that. So that wasn’t helpful, but I guess, I was lucky enough to be one of those people that could use that as a motivation, as in “I don’t want to be like that when I’m 40 therefore I’m going to work hard at this”. (Kylie)

Support and encouragement from family, friends and treating professionals was another source of motivation which was drawn upon throughout the process of recovery. Fiona reflects on how this support assisted her in making her feel better about herself, which in turn assisted her motivation:

I had lot of supports from some people that made me feel better about myself, which was sort of the core thing. You have to change this negative thinking or negative imaging of yourself to a somewhat positive one, to make you feel like you wanted to be living. (Fiona)

Another motivating factor, which was noted by all participants, although also frightening for some, was the prospect of a better life away from the anorexia nervosa. Early in the recovery phase motivation stemming from the prospect of a better life may emerge from the individual becoming weary of their anorexia nervosa, and weary of the

disorder getting in the way of a normal life. Amanda reflects on how the process of realizing that her eating disorder was getting in the way of her career goals intensified her desire to recover:

It's important that they [goals] are related to your eating disorder, in a way that it [the eating disorder] hinders you achieving those goals. For example I tell myself there is no way I can be a good nurse if I'm not healthy, and that way I look past my eating disorder, and I think "oh well I have to get rid of it, to do this". So the goals are not related to the eating disorder, but at the same time they are related, in that the eating disorder prevents you from doing those things. That gives you more power, and it makes you hate your eating disorder more. (Amanda)

From another perspective, Fiona reflects on how finding things she enjoyed helped pull her out of the darkness that surrounded her anorexia nervosa, and increased her motivation to recover:

When you're right down the bottom of anorexia and really depressed and everything, it sometimes seems that everything is black and everything is horrible, but there always will be something (well at least I think there will be something) still there that you would enjoy or something that you'd think that you would enjoy. You've got so to focus on those sorts of things, as well as focusing on what the issues are. By doing that, like getting a sufferer into doing those things that they enjoy or they have a zest for, benefits them a whole lot because they see that there's another side of life. There is a side that's enjoyable and there is something to live for. (Fiona)

Further along the path of recovery, the individual may have had a number of glimpses of life outside of the disorder, and these glimpses increased their motivation for a normal life. Kylie reflects on how the support of family and friends assisted her in getting increasing glimpses of normality, which in turn increased her motivation:

The second thing that was really important was having a great support network of family and friends, who gave me glimpses of what life was like outside of the hospital walls, and without an eating disorder. That created motivation; having those little glimpses of life beyond an eating disorder, such as, going out and going shopping with a girlfriend and starting to think about what courses I want to do and what work I wanted to do. I was still feeling really afraid, and I still not sure that I could live without individual counselling and stuff, but I was getting excited and motivated. (Kylie)

Creation of Safety

The third phase of recovery, which was ongoing and experienced by all participants, was creation of a sense of safety. Upon the individual feeling safe and

validated, they were able to take risks, challenge thoughts and behaviour, and change. This in turn increased an individual sense of self, life-meaning and ability to cope. Creation of safety was established through the removal or reduction of the presence of threats both external and internal, or increasing one's capacity to address such threats.

The initial and main source of safety in the process of recovery is the support of others; be it family, friends, partners or helping professionals. Supportive interactions with others were characterized by encouragement, acceptance, low pressure, low judgement, empathy and validation. Amanda reflects on her experience of entering a treatment facility, and how her experience of love, caring and enthusiasm from the health professionals built her trust in the treatment.

It's the whole trust thing. They [the treating professionals] are so loving, and caring, and so passionate about what they do, that you feel you can just trust them. You just feel like they are more friends or family than a doctor and patient. (Amanda)

For a number of participants the sense of safety was initially built in the therapy room, which built the individual's confidence and allowed them to explore and establish safety and support in other areas of their life. Through the process of support the individual's perceived threat of rejection decreases, as there less incidence of rejection occurring and the individual accepts themselves more, and feels less vulnerable.

Support is not the only means by which safety is created, changes to the environment can also help reduce the perception of threats, and increase safety. An example of this is the reduction or removal of appearance-related influences through the removal of fashion magazines, or travelling to other cultures, or connecting with nature. Removing appearance and weight-related influences reduces the perceived threat of rejection and failure, as the individual's the individual's tendency to tie acceptance and rejection, success and failure, to how they look or what they weigh is reduced. Karen reflects on her perceived need to remove oneself from the influences of a thin obsessed society, as they shape an individual's perception of what others are thinking about them:

You've got to get away from western influences, because they are everywhere; billboards with what women think men like. Yet, men really like all women, as long as they are happy, and confident in themselves, they like them. But, magazines and mirrors and all that stuff are bad. (Karen)

By connecting with nature or exploring other cultures, the individual discovers a bigger picture, builds their self esteem and develops a healthier and less pressured means of interacting with the world. Julie reflects on how travelling to Europe gave her a bigger picture of how people interact with the world:

I suppose when I got back from Europe I'd seen more of life. I'd seen people more able to enjoy themselves, and I'd got involved in some things that were going to make me out there meeting more people. (Julie)

Although support and entering into a less appearance-focused environment play a key role in creating safety, the individual's thought processes also change to create a sense of safety. This brings us to the next phase in recovery, in which internal changes are made to allow for the letting go of the anorexia nervosa framework, and enable the creation of a new framework.

Creating a New Framework

Anorexia nervosa is referred to as a framework at this point, as in the maintenance of the disorder, anorexia nervosa has taken over the individual's Eigenwelt and Core. In taking over the individual's Eigenwelt and Core the disorder becomes the individual's identity, meaning, worth, way of coping, and affects the individual's cognitions, behaviours and emotional. Recovery involves letting go of anorexia nervosa, and filling the space created in one's core with a healthier alternative framework. This alternate framework guides an individual's thoughts, behaviours and feelings, and becomes their life-meaning, identity, worth and means of coping.

One of the initial steps of this phase is assisting the individual with anorexia nervosa in developing enough physical and psychological resources to think clearly, which in turn assists the individual to make informed, lasting positive change. As noted previously, starvation has a significant impact on the individual's cognitive functioning, hence improved physical and psychological resources was initially and primarily established through weight restoration and medication. Amanda reflects on through slowly gaining weight, she gained resources and was able to think more clearly and logically:

If you can do it slowly, so that you're able to accept each stage, its amazing how much clearer you think. You can think so much clearer. This friend of mine, she is still very sick with anorexia, and just the things she says, and does, I can see the

distortion. Then I think, “oh how can she not understand this” or “how can she not know that”. You not only think a lot clearer but logically, you can see the logic of your illness. (Amanda)

There were three main means in which participants got to a weight in which they experienced thought clarity. Some participants, such as Amanda, reached a weight that increased cognitive functioning through slow-paced weight gain, which allowed the individual to accept their weight. While a number of other participants reached a weight in which they experienced improved thought clarity in a rapid and unhealthy means, such as through binge eating or bulimia nervosa. The third means of gaining weight was rapidly through a treatment facility, such as at a hospital. However, it is important to note that weight gain, no matter how it is done, in itself does not lead to recovery, as reflected in Fiona’s experience:

They restored my weight to what they thought was fine in the psychiatric ward, but I just got out and went back down. So it didn’t really help. Just by putting on weight, it didn’t really help to be recovered. It’s very much you have to treat the mind as well, as the body. Ideally, you have to do it both at the same time. (Fiona)

Medication improved individual’s resources by bringing emotions and mood to a more manageable and tolerable level, which in turn assisted some participants in eating, engaging in treatment or both. For some of the participant’s suffering with depression, medication assisted in improving their mood and energy levels, as well as creating a sense of hope. While for participant’s struggling with anxiety medication assisted in reducing anxiety to a more manageable level, which enabled them to eat and take the risks involved in recovery.

With increased physical and psychological resources the individual has increased capacity to clearly and rationally become aware of and understand the thoughts and psychological processes that contribute to anorexia nervosa. For the majority of participants awareness and understanding initially began with prompting from an external source, such as psycho-education, therapy or support groups.

The level of awareness and understanding described by participants varied, reflecting each individual’s personal experience with the disorder. For some participants, the awareness and understanding gained in the process of recovery was purely focused on cognitions specifically surrounding anorexia nervosa. While for others the focus was

broad, with them becoming aware not only of the anorexia nervosa thoughts, but also negative thoughts. Still others, such as Mel, went to a deeper level of awareness and understanding by exploring the meaning behind the disorder.

It was really only sort of in the last five years that I started to think, “well geez, if I had life in prison that’s 25 years, and it’s almost like I have been in my own prison”, and I started to let go. Let go of it, and thinking “you’ve been punished enough”. It was almost like a punishment I had on myself. (Mel)

Once the individual becomes aware of and understands the thoughts and processes that played a role in the development and maintenance of the disorder, the next step is to challenge and change them. The process and means of challenging and changing tended to vary from participant to participant, with participants engaging in change at different levels, and in different ways. The challenging of cognitions not only involved anorexic-specific cognitions, but also negative cognitions, and the participant’s general world view. Amanda reflects on the importance of, and difficulties involved in challenging thoughts:

All the thoughts that you have, and all the feelings that are your eating disorder, or are your negative mindset; they need to be challenged, because they are what are keeping it alive. But you need to challenge those thoughts, and you need to be persistent with constantly challenging them, because that’s how you change. They do go away, when you challenge them, but it just takes a long time. But that is (I think) the key to recovery. (Amanda)

Although, the processes of challenging and changing thoughts would vary from individual to individual, it generally began with prompting through therapy. Ellie reflects on the questions she used to challenge her eating disorder:

Until you start saying, why do I have to be thin? Or why do I believe that I am fat when I am underweight? You can’t get better until then. (Ellie)

While for other participants the actions of other people challenged cognitions that underlay the disorder. For example, Karen reflects on how the actions of her friend, challenged and prompted a change in her own thoughts:

She sat there with all these half long bread rolls, and smacked the butter on it and layered it on. Then smacked jam on it, and just ate them, and loved it. She must have had about 4 or 5 of these, and I’m sitting there, and I’m starving, and something clicked. I thought “I must be able to have one of these, if she can have five, six whatever. I must be able to have one”. (Karen)

Another means, by which participants challenged their cognitions, is through behaviour. Throughout the path of recovery the individual goes through a process of breaking old eating disorder behaviours, and embarking on new “normal” behaviours. The process of breaking behavioural routines changes how the individual interacts with the world and challenges anorexia nervosa cognitions, as reflected in Mel’s experience:

It was like I thought if I stopped jogging, I would suddenly put on weight, and become fat, but when I stopped, and I started only swimming three times a week it didn’t well make any difference. I hadn’t put on any weight. (Mel)

However, upon breaking one’s old routine a space is created that may be filled with healthy or non-anorexia related behaviours to assist the process of recovery. As noted earlier in this chapter, behavioural changes observed in recovery tend to challenge old anorexia nervosa thoughts, or support thoughts of recovery.

As the individual has increased resources, and is engaging in cognitive and behavioural change, they also develop an increased ability to identify and manage emotions. Again the exact processes that contributed to improved emotional identification and management varied significantly from participant to participant. For some participants the process of regaining weight, and physically stabilizing assisted the reduction of negative emotions. While for other participants, such as Beth, medication played a significant role in helping her manage difficult emotions.

I used to have one [Valium] every night before dinner. I used to say I couldn’t have dinner without a Valium. It calms you down. It’s really nice, sort of ‘ah’. I don’t take any now. I got weened off them by my naturopath. (Beth)

Skills and strategies learnt in treatment, such as challenging anxiety-provoking or depression-provoking thoughts also helped reduce the intensity of the emotions for a number of participants. Yet for other participants, such as Shelley, experiencing support and positive experiences in one’s environment assisted the reduction of negative emotions, and also increased positive emotions.

I think the big thing is anyone helping someone with these issues, is we are not a friend, to ourselves, and so it would be lovely to have another person who is. And basically just to have that compassion and empathy. I really believe that you need someone there who believes in you, so you can then learn to believe in yourself. (Shelley)

As the individual becomes aware of and change the thought and processes associated with anorexia nervosa, as well as engage in alternate activities and managing emotions, they begin to develop an understanding of who they are and build a sense of self worth. Also through the process of creating a new framework the individual becomes increasingly aware of what they value and enjoy, which in turn guides the development of life-meaning. Alternatively, the individual has developed confidence and skills to manage potential distress from not having life-meaning, while they search for a source of life-meaning.

By the end of the creating a new framework phase the individual has gone through significant change in how they view themselves, as well as how they view and interact with the world. The personality of the individual resurfaces and is evident, as opposed to being hidden behind the anorexia nervosa, and their lifestyle has changed accordingly.

The Threat, Distress, Alleviation Model at the End of the Four Phases

At the end of these four phases of recovery there is a significant change in the individuals experience across all areas of the Threat, Distress, Alleviation model. The individual's level of distress has significantly decreased as the perception of threat and vulnerability have decreased, and the individual has developed strategies to cope, hence are less likely to turn to anorexia nervosa behaviours to alleviate distress.

Through the recovery journey the presence of threats is significantly reduced, hence the individual feels less at risk of failure, rejection or annihilation. The reduction in perception of threats is largely established during the phases of creation of safety and creating a new framework. In relation to the threat of failure through skill building and cognitive changes the individual may set more realistic and achievable goals, thereby reducing the risk of failure. The support gathered, as well as the social skills developed, during creation of safety phase also reduces the threat of failure and rejection, as with such support and positive experiences the individual is less likely to perceive that they will be rejected if they fail or meet a certain standard of appearance.

The threat of annihilation by internal processes of thoughts and emotions is reduced, as through all phases of recovery the individual has developed awareness, understanding and skills to assist the identification and management of thoughts and

emotions. While, the threat of annihilation by external forces is reduced, particularly during the creation of safety and creating a new framework phases of recovery, as the individual has improved awareness and understanding of self and the world, as well as skills to manage difficult interpersonal situations and assert boundaries. Also through the phase of creating a new framework the individual may have, or have begun to, process past traumas and manage their impact.

At the end of the four phases of recovery not only has the threats reduced, but also the individual's perceived vulnerability to the threats. As noted earlier vulnerability is established through external (dangerous environment or presence of ideal), as well as internal processes (feelings of inadequacy), both of which change in the phases of recovery, particularly during the creation of safety and creating a new framework phases. In the creation of safety phase of recovery the individual has increased positive interactions, supports and skills, hence the perceived danger of the world is reduced, as well as the individual's feelings of inadequacy. In the creating a new framework phase of the recovery the individual develops an alternate way of looking at the world and self, as well as a variety of skills, which combine to reduce sense of vulnerability created by both internal and external processes.

Towards the end of the four phases of recovery not only is the presence of threat and individual vulnerability reduce, but the individual has an improved ability to cope with distress and life in general. The process of developing alternative healthy coping mechanisms is aided by experiences across all phases but particularly the building motivation, creation of safety and creating a new framework phase. In the building motivation phase of recovery the individual develops and builds not only a desire to overcome anorexia nervosa, but to live and experience life. Experiences and factors that motivate an individual in recovery may also assist an individual during other times of distress or difficulty. During the creation of safety phase of recovery the individual creates and build supports which can assist the individual in managing distress, both during the recovery process, as well as afterwards. While, in the creating a new framework phase the individual develops an increased awareness of the self and the world, and have developed skills and an alternate way of thinking and interacting with the world, which allows for an increased ability to identify stressors and manage distress.

Therefore, in recovery threats may still exist, but the individual perceives themselves as less vulnerable to them, and thereby are less distressed. Should the threat reoccur or there be an increased proximity to the threat, there are increased perceived resources (both internal and external) for the individual to turn to instead of weight loss and food restriction to alleviate distress. Also, due to the individual's experience throughout the disorder, messages linking weight loss or food restriction to success or distress alleviation, seem less persuasive. The words of Fiona reflect the changes discussed, in that she notes a difference in experience of the same issue (knowing what to do with her life) pre and post recovery:

I'm in the same sort of situation but I have a different opinion of it. I have a different way of thinking, like I accept it as being okay. It's [the situation] not too much of a difference, but back then it was like "oh I'm a big failure, I should be knowing what I am going to do". (Fiona)

Summary of the Phases of Recovery

The path towards recovery is dynamic and intensive, involving significant change, which is captured in the four phases of recovery. The journey of recovery involved the individual recognizing that they have a serious disorder and need to change, as well as developing a desire to let go of the disorder. Upon the individual recognizing the need and want to relinquish anorexia nervosa, the individual need to develop a safe space in which they can engage in the difficult and emotional process of relinquishing the anorexia nervosa, and developing a new framework for their life. These processes are assisted by both internal and external experiences, and vary from individual to individual. Yet by the end of an individual's journey of recovery although they may still experience threats and distress, the individual has developed improved resources (both internal and external) to manage and alleviate threats and distress, and are significantly less drawn to anorexia nervosa behaviour.

Discussion of Recovery Findings

Anorexia nervosa is a highly complex disorder, which is evident in the vast array of theories and treatments discussed in chapters 2 and 3, as well as the variety and complexity of participant experiences. Unfortunately the knowledge that currently exists on anorexia nervosa tends to be fragmented, and thereby struggles to thoroughly capture

the experience the disorder. The gap between knowledge and experience is indicated by the poor response to treatment and high relapse rates (Cockell, Zaitsoff, & Geller, 2003; Field et al., 1997; Herzog et al., 1999; Keel & Mitchell, 1997; Olmstead, Kaplan, & Rockert, 1994; Steinhausen, 2002), as well as participants indicating in their responses and stories that one theory or treatment alone does not capture their experience of recovery. Despite the heterogeneity and complexity of anorexia nervosa there are similarities of experience on the journey to recovery, as indicated upon organization of knowledge and experience into the adapted worlds of being, and captured in the four phases of recovery and the Threat, Distress, Alleviation model. Upon review of knowledge raised in chapters two and three it becomes increasingly evident that the phases of recovery and the Threat, Distress, Alleviation model compliment and tie together knowledge to capture the subjective experience of anorexia nervosa. Understanding gained from the phases, and the Threat, Distress, Alleviation model, and knowledge from the field can be used to assist the development and implementation of treatment, with particular consideration of treatment matching. Yet further research is needed to provide additional depth and clarity to the phases, as well as explore means of implementing phases into practice.

Knowledge from the biological paradigm discussed in chapters contributes significantly to the understanding of an individual's journey through the four phases of recovery. In chapter 2 it was raised that due to the impact of starvation an individual has fewer cognitive resources, low energy levels, increased preoccupation with food and increased instability of emotions. Such impact of starvation can contribute to an individual becoming 'stuck' in a particular phase of recovery; hence the impact of starvation needs to be addressed in treatment. However, the impact of starvation that can keep an individual in a particular phase can also assist them in overcoming denial and building motivation, as indicated in participants noting the negatives of the disorder contributed to these phases.

In chapter 3 it was raised that a key component of recovery is weight restoration as it reduces or eliminates starvation syndrome, and increases cognitive and emotional functioning (Brown, 1993; Mehler & Crews, 2001). A number of medications have also been trialled with varying success to address depressed mood, thought distortion and

racing, and appetite (Brambilla et al., 2007; Kaye et al., 1997; Kaye, Weltzin & Hsu, 1991; Strober, Pataki and Freeman, 1999; Szmukler, Young, Miller, Lichtenstein, and Binn, 1995; Walsh, Kaplan, Attia, Olmsted, Parides & Carter, 2006). These increased resources, be it through weight gain, medication or both, are particularly important when an individual is in the phase of creating a new framework, as it enables the individual to clearly and rationally process material and change. Clarity of thought and reduction of distressing emotions can also play a role across other phases of recovery, as such clarity can enable the individual to see their disorder, and recovery in rational manner, thereby possibly allowing them to identify there is a problem (overcome denial), and be motivated to change. A reduction in emotional turmoil and improved cognitive functioning can also increase one's sense of safety.

It was also raised in chapter 3 that restoration of physiological resources in and of itself does not lead to recovery. This was confirmed by the findings which indicate a number of processes occurred in conjunction with or after physiological restoration that are associated with recovery.

With increased physical and psychological resources, particularly in the form of cognitive capacity and emotional regulation, the individual is able to challenge and change thoughts and beliefs that are a product of social-cognitive processes, and may be playing a role in the maintenance of anorexia nervosa. CBT and media literacy programs are two interventions (discussed in chapter 3) that can assist the process of challenging and changing thoughts and beliefs. What is evident in the findings, is that participants also believed that the challenging and changing of thoughts around anorexia nervosa, as well as other unhelpful or distressing thoughts, is an integral part of recovery and CBT can be an effective means of assisting individuals with this process. However, it was also noted that CBT was more effective when conducted at an appropriate time and space, which was generally when an individual was in the fourth phase of recovery. Hence, the individual has recognized the presence and seriousness of the disorder and is motivated to take steps towards recovery, and feel safe to do so.

In chapter 2 the role of the processes of social learning and social comparison in the onset and maintenance of anorexia nervosa was discussed, yet these processes are also pertinent to an individual's recovery journey. The process of social learning and

social comparison can help or hinder recovery, depending on the nature of the process and the environment. Social learning can create a barrier to recovery if the individual is still learning anorexia nervosa messages (i.e. messages related to dieting, weight loss and appearance) or if the anorexia nervosa is being reinforced. However, the social learning of healthy messages about food, weight, body and self, and reinforcement of the messages can assist an individual in recovery. Social learning played a role for participants at varying phases of recovery, but was evident across all phases.

Social comparison can also help or hinder the recovery process. Social comparison can hinder recovery if an individual is comparing themselves to someone who is very sick with anorexia nervosa, and is motivated to be like them. Alternatively social comparison can facilitate motivation for recovery if the individual compares themselves to someone who is very sick with anorexia nervosa, and doesn't want to be like them. This is evident in the experience of Kylie, noted earlier in this chapter, whereby she saw fellow sufferers of anorexia nervosa and recognized if she did not change, then that is how she would be. Social comparison can also be a means of challenging and changing cognitions, as evident in the experience of Karen who compared herself to a friend who was eating, and then gave herself permission to eat. While for other participants social comparison assisted them in recognizing the presence and seriousness of anorexia nervosa.

In chapter 3 the role of changing family dynamics was discussed, in particular establishing effective communication patterns, boundaries, and uniting the family to fight the disorder. These processes are particularly important in the creation of safety and creating a new framework phases. The family can be an important source of safety for an individual in recovery. For a number of participants safety was initially established in the therapy room (individual or family therapy), before it could move to the family unit. In the process of individual or family therapy, the individual sufferer (as well as family members) may go through the processes associated with creating a new framework, in that they let go of the old perceptions of the family unit and members, and replace them with new perceptions and interactions.

Although family processes are particularly pertinent to the creation of safety and creating a new framework phases of recovery, it was evident that interactions with the

family can be integral across all phases of recovery. The showing of concern and support can assist an individual in overcoming denial, as well as increase motivation to recover.

In chapter 3 it was raised that one of the key elements of recovery from anorexia nervosa is the development of life-meaning and means of coping with existential distress as well as other forms of distress. There are two main phases in which life-meaning appears to play a role in recovery: building motivation and creating a new framework. In the early stages of building motivation an individual may be motivated by the hope or prospect of life-meaning outside of the disorder. As the individual progresses in their journey towards recovery they may begin to experiment and connect with other sources of life-meaning and establish goals, this in turn motivates the individual to continue on their path towards recovery.

Creating a new framework is the other phase in which an understanding of life-meaning and coping is important, as it is predominantly in this phase that the individual explores and develops alternate sources of life-meaning and coping. As noted in chapter 3 there are a number of interventions that can assist an individual in this process, including motivation interviewing, CBT, DBT and ACT. It remains unclear which treatment may be most efficacious, yet an understanding of these interventions and the individual presenting to treatment may assist the appropriate matching of treatment to client needs. However, an individual needs to feel safe before exploring and embarking on significant changes of life-meaning and coping.

What is evident in reflecting upon the knowledge that exists in the field is that it contributes significantly to the understanding of the recovery phases, and that different knowledge and interventions are associated with different phases of recovery. Hence, depending where an individual is in the phases of recovery their treatment needs may vary. As noted in the previous chapter and chapter 1, the proposition that different interventions are needed at different stages in an individual's journey to recovery has also been raised in relation to the TTM (Prochaska, DiClemente & Norcross, 1992). These findings of phases of recovery support and compliment both the stages and processes of change noted within the TTM (Prochaska, DiClemente & Norcross, 1992), and by tying the two together (phases of recovery and TTM) intervention needs and potential interventions for the different phases become evident.

The first phase of overcoming denial involves three subcategories (presence, seriousness and responsibility), and tends to be an experience of individuals in precontemplator, contemplator and preparation stages of change, depending on the individual's level of denial. Individuals struggling with overcoming denial of presence and seriousness tend to be in the precontemplator stage, while those struggling with denial around seriousness and responsibility tend to be in the contemplator or preparation stage of change.

In chapter table 1 (pg 22) four process of change are noted as being associated with the stages of precontemplation, contemplation and preparation: consciousness raising, dramatic relief, environmental re-evaluation and self re-evaluation (Prochaska, DiClemente & Norcross, 1992). All four of these processes are evident in participant's experience of overcoming denial phase of recovery. Consciousness raising refers to the process of increasing information and knowledge about self and the problem (anorexia nervosa). For many participants this process tended to occur in interactions with other people, in particular treatment providers. Dramatic relief refers to the individual getting in touch with what they are experiencing and expressing their feelings about the problems and themselves. Again, interactions of this nature were noted by participants in the overcoming denial phase. Environment and self re-evaluation refers to the process in which the individual explores their anorexia nervosa in relation to the self and the environment, respectively. In the findings it was noted that in the overcoming denial phase of recovery participants tended to reflect on the negative impact of the disorder on themselves and others, as well as how the disorder was impeding living a fulfilling lifestyle, which are forms of self and environment re-evaluation. Hence the experiences of individuals in the overcoming denial phase of recovery capture the processes of change noted in the TTM.

Treatments for individuals who are in the process of overcoming denial should encourage the individual to get to know themselves and the disorder, with the purpose of assisting the individual in coming to identify that they have a serious disorder, and that they are responsible for change. Motivational interviewing has the same grounding and aim (Miller & Rollnick, 2002), thereby motivational interviewing is likely to be an effective therapy for individual's in this process. Psycho-education can also be beneficial

as it provides individuals with information that they can use to identify whether or not they have anorexia nervosa, and also note the seriousness of the disorder. Some basic CBT or subtle challenging of thoughts may also be beneficial, particularly in establishing personal responsibility for change. Outside of treatment or therapies, the actions of others, such as raising the issue and showing concerns, can also assist the process of overcoming denial.

Upon overcoming denial and entering building motivation phase, treatment needs change as the focus turns to establishing and building motivation to recover. It is important to note that this phase is ongoing, and involves not only establishing motivation but also building motivation, hence tends to be an experience of individuals in all stages of change. Early in an individual's recovery journey the individual is finding reasons and creating motivation to change. Individuals at this level of motivation tend to be in the contemplator and preparation stages, and are engaging in the processes of consciousness raising, dramatic relief, environmental re-evaluation and self re-evaluation. These processes were also noted in relation to the phase of overcoming denial, hence it is of no surprise that in the findings it was noted that experiences and factors that assisted in overcoming denial also assisted in building motivation.

Later in the recovery journey the individual is finding further reasons, or building on existing motivation, to continue to engage in recovery and change. Individuals with this level of motivation tend to be in the action of maintenance stage of change, and thereby engaging in the processes of self liberation, reinforcement management, helping relations, social liberation, counter-conditioning and stimulus control (Prochaska, DiClemente & Norcross, 1992). These processes of change, particularly helping relationships, social liberation, and reinforcement management, are evident in the findings, as participants reported turning to supports and exploring, accepting and reinforcing alternate behaviours and a life away from anorexia nervosa.

Interventions aimed at assisting individuals with building motivation may vary slightly depending on where the individual is in their recovery journey (that is, is the individual needing to establish motivation to engage in change, or have they started to make changes and are struggling to maintain motivation). Motivational interviewing is an intervention commonly used with individuals in precontemplator and contemplator stages

of change, hence it may be beneficial for individuals early in recovery who are needing to establish motivation. Upon the individual engaging in the recovery process, motivational interviewing could continue to be used, but also aspects of different therapeutic interventions may be beneficial to continue to build and maintain motivation. For example, valued and committed action within ACT may build motivation when it may be wavering, or CBT to challenge the thoughts that may be contributing to the drop in motivation, or engaging family or significant others in treatment to provide support.

Outside of the treatment interventions the support and concern of others can provide a source of motivation, both in the early stages and throughout recovery. Hence, it is important that interaction with supports reflects an understanding of the individual's internal battle with anorexia nervosa.

Upon the individual recognizing the nature of the disorder, and developing motivation to change, they then need to feel safe in order to take further steps in recovery. Creation of safety is an ongoing phase and an experience particularly important to individuals in the preparation, action and maintenance stages of change. In the findings it was noted that support and the reduction of threats in the environment helped participants feel safe, and enabled them to engage in their recovery journey. These findings capture the processes of change of helping relations and stimulus control, which are processes generally associated with the action stage of change (Prochaska, DiClemente & Norcross, 1992). Helping relationships refers to the process of connecting in an open and trusting way with someone who cares. While, stimulus control refers to the process of avoid or countering stimuli that may trigger problem behaviour (Prochaska, DiClemente & Norcross, 1992).

The importance of creation of safety, particularly through helping relations, is further captured in the literature on therapeutic relationships and cohesiveness in group therapy. Knowledge and understanding of the importance of, and how to establish safety in both individual and group therapy environments is imperative for those treating individuals with anorexia nervosa. Characteristics of the interactions noted in relation to creation of safety, parallel that noted in the literature in the creation of a therapeutic relationship, and include, non-judgemental, acceptance, empathy and validation (Yalom, 2005).

Yet treatment is not the only source of safety (and nor should it be) for the individual, particularly when the individual is further along in their recovery journey. It is important that family, partners and friends also become a source of safety, which will enable the individual to, in time, step away from treatment. Different interventions can assist the process of establishing safety with others, such as family or couples therapy. Yet such therapy is not necessarily required in order to create safety. Increased understanding of anorexia nervosa by loved ones, which in turn increases the ability to empathize, also can play a role in creating a safe and supportive environment. Increased understanding can be achieved through psycho-education interventions, support groups and reading or watching material on anorexia nervosa. It is important to note that some individuals already may have a safe and supportive environment outside of treatment providers.

Creation of safety enables and facilitates the process of creating a new framework. Individuals in the creating a new framework phase of recovery tend to be in the action and maintenance stage of recovery. Hence, the experience of an individual in the creating a new framework encompasses a number of processes of change associated with the action and maintenance stage of change, including reinforcement management, helping relationships, counter conditioning, stimulus control and social liberation.

However, there appears to be a degree of variability in the experience of how the changes of creating a framework occur, as indicated by variability in response and experience of treatment. However, these findings suggest that although some form of intervention is needed while an individual is at a low body weight, the individual does need a certain level of weight restoration (and in turn cognitive functioning) to engage in the process of creating a new framework. Yet, due to the variability in experience and perception of weight gain noted in participants, a number of questions remain unanswered in relation to weight restoration, including: what is the most efficacious way of achieving weight restoration, at what point does an individual have enough resources to engage in creating a new framework, and what interventions should be used prior to that point?

During the creating a framework phase the individual goes through significant change in thoughts, behaviour, emotions, coping, and perception of self, life-meaning and

the world around. Interventions aimed at assisting an individual identifying and addressing cognitive and psychological processes, as well as assist behavioural change, and identification and management of emotions are likely to be beneficial for individuals with anorexia nervosa. CBT, DBT and ACT, are three behaviourally based interventions noted in chapter 3, which are currently being trialled in the treatment of anorexia nervosa. All three of these treatments aim to address cognitions, behaviours and emotions in slightly different ways, and would thereby be likely to be beneficial to individuals with anorexia nervosa. However, there is also a vast array of other interventions that are being used in the treatment of anorexia nervosa that may also be beneficial, depending on the individual's needs and psychological state. Hence, an eclectic approach (whereby elements of a number of approaches are drawn upon) by those treating anorexia nervosa may be most beneficial, to allow for adapting to the needs of the individual.

The picture of recovery generated by this research is of a complex experience, whereby the individual has different needs, and in turn requires different interventions (both for the individual, and those surrounding them) at different phases of the disorder. Understanding of the phases of recovery can be combined with understanding of the TTM to establish potential interventions at different phases are summarized in Table 14. As the experience of recovery is complex, and treatment varies pending individual needs and circumstances, a thorough assessment is required to identify the individuals phase, needs and circumstance, and treatment in turn that is matched to this.

Table 14: Interventions for Different Phases of Recovery

Phase of Recovery	Stage of Change	Processes of Change	Aim of Intervention	Intervention
Overcoming Denial	Precontemplator Contemplator Preparation	Consciousness raising, dramatic relief, environmental re-evaluation, self re-evaluation.	Exploration of self and anorexia nervosa, to assist recognition of presence, seriousness and responsibility.	Motivational Interviewing, Psycho-education, CBT.
Building Motivation	Precontemplator Contemplator Preparation Action Maintenance	All.	Develop and build a desire to recover from anorexia nervosa.	Motivational Interviewing, ACT (valued & committed action), CBT, involving significant other in treatment.
Creation of Safety	Preparation Action Maintenance	Helping relationships, stimulus control.	Create a safe space in which the individual can build self worth, explore processes and engage in challenging and changing.	Therapeutic relationship (individual therapy), group cohesiveness (group therapy), family or couples therapy.
Creating a New Framework	Action Maintenance	Stimulus control, helping relationships, counter conditioning, Reinforcement management, social liberation.	Assist the individual in letting go of old anorexia nervosa patterns, and creating new ones.	Weight restoration, medication, CBT, DBT, ACT.

As this research aimed to cover breadth of individual experience, at the expense of depth of understanding of specific processes, a number of questions remain that may

need to be of focus for future research. One such question that was raised in chapter 3, and confirmed in the findings, is: what is the most efficacious means of achieving weight restoration? Participants varied significantly in their experience and perception of weight restoration, although participants appeared to suggest a slow pace of weight restoration is effective, there was no consensus. Participants also noted that when at a low body weight, it was harder to engage and benefit from psychological treatment, yet still felt they needed some form of treatment. This raises further questions of: what interventions to use when an individual is low on physical and cognitive resources due to low body weight, and how to determine when an individual has enough physical and cognitive resources to engage in treatment? Finally, these findings suggest the importance of treatment matching, and provide phases in which treatment could be matched to, yet further research is needed to determine and enhance treatment matching (beyond assessment and therapeutic judgment). Both qualitative and quantitative research would be required to thoroughly answer these questions.

Again, as noted in previous chapters this research was impeded by methodological difficulties. On top of limitation noted in previous chapters, biases in participant responses may have been created by the treatment modalities they were exposed to. At the time in which participants were being treated for anorexia nervosa behavioural therapies and cognitive behavioural therapies were dominant, as reflected in their responses. Treatment of anorexia nervosa has changed over the years, and there is increasing variety of treatment approaches including narrative therapy, emotion focused therapy, ACT and DBT. As it is unlikely that participants were exposed to these forms of treatment, they are not captured in these findings. A direction for future research may be to explore the different treatment methods, and potential differences in responses.

Summary of Recovery Findings and Discussion

In summary an individual's journey towards recovery is unique, and complex. Although significant knowledge exists in the field the relevance of that knowledge to the understanding of a particular individual varies significantly based on the knowledge itself, and experiences of the individual (both internal and external). This is captured in the variability of response to treatment rationale and treatment presented to participants.

By the end of an individual's recovery journey, their worlds of being has completely transformed. The once dangerous Umwelt and Mitwelt, is now safe and characterized by positive experiences and connections. The Eigenwelt and Core, which were previously dominated by the anorexia nervosa, are characterized by alternate thoughts, behaviours, means of defining self, life-meaning and coping. Yet the individual appears to go through four phases (overcoming denial, building motivation, creation of safety and creating a new framework) in order to reach this state in their worlds of being. By the end of these four phases the individual no longer perceives their world as threatening, have reduced their own sense vulnerability to threats, and increased their self efficacy in their ability to deal with threats. Hence, they are significantly less distressed, and less likely to turn to weight loss as a means of managing threats and distress. It is evident that knowledge and understanding that exists in the field, particularly the TTM, has contributed to the understanding of the individual subjective experience of recovery of anorexia nervosa that is captured in the four phases. The complexity of experience and treatment is also evident, in that based on an individual's phase and factors both within and outside of the individual, different interventions are required. This research is exploratory in nature, and a direction for future research, and thus to improve treatment efficacy, is to build on understanding generated by this research, and explore and find means of enhancing the process of treatment matching.

Chapter 8: Conclusion

A vast array of knowledge of anorexia nervosa exists in the field, yet anorexia nervosa continues to be a disorder that perplexes both professionals and lay persons alike. It is also a disorder known for its complexity, and resistance to treatment. One of the potential reasons behind the existence of an array of knowledge, yet the disorder remaining baffling and difficult to treat, is fragmentation in the understanding of the disorder. Fragmentation has been an issue throughout psychology's history, and has a significant impact on the understanding of mental illnesses, including anorexia nervosa. The impact of fragmented understanding on individuals with anorexia nervosa include; difficulties with early identification, difficulties implementing and developing prevention and treatment programs, reduced efficacy of treatment, individuals with the disorder not feeling heard or understood, and increased risk of relapse for individuals with the disorder. The impact of fragmented understanding is particularly disturbing when one reflects upon the significant physical and psychological impact the disorder has on the individual and those around them.

The aim of this research was to attempt to address the issue of fragmented understanding of anorexia nervosa by tying together knowledge from theory and recovered sufferer's experiences in a meaningful manner that captures the complexity of the course of the disorder. It was hoped that by doing so an increased understanding of the disorder could be gained, and that this could be used to assist development and implementation of treatment and prevention interventions. The understanding and application of knowledge of a disorder as a whole, hopefully demonstrates the importance of, and need, to consider mental illnesses in terms of a whole complex subjective experience, as opposed to parts or labels.

Individuals around the time of onset of anorexia nervosa are highly distressed, which is largely due to the fact that they are facing a number of threats (failure, rejection and annihilation), to which they feel highly vulnerable to, due to both internal and external factors. In the absence of other means of coping, and in the face of distress, the individual goes in search of something or anything that may alleviate the distress. As being thin or losing weight is commonly portrayed as a means of self improvement that will lead to many other positives in life, the individual grasps onto it as a means of

alleviating their distress. Hence, the very initial steps of anorexia nervosa may stem from a seemingly innocent attempt of self improvement through weight loss in the face of distress, created from the perceived vulnerability to the threat of failure, rejection or annihilation.

In the early stages of anorexia nervosa the disorder becomes a means of alleviating distress, reducing threats and perceived vulnerability that were experienced in onset. The disorder may also be reinforced both internally and externally, as it becomes the individual's haven away from distress.

However, as the disorder progresses the functionality of the disorder abates, and the threats, vulnerability, and distress experienced around onset resurface. The haven begins to collapse, a paradise is lost. But the individual not only has to try and cope with the resurfacing of the old, but also manage new difficulties created by anorexia nervosa, and they have significantly less physical, psychological and social resources to do so. Hence, the individual faces barriers to their new haven of recovery.

However, through the process of recovery, the individual recognizes they have a serious disorder, and are not only responsible for change but also motivated to take steps towards recovery. The individual begins to develop a sense of safety, which enables them to take the risks required to let go of the old anorexia nervosa framework, and create a new healthy framework. At the end of an individual's recovery journey the threats that have haunted them throughout the disorder may or may not be present, but even if they are present they appear far less daunting. The individual feels significantly less vulnerable, and more able to cope with the threats, as well as general life stressors. Hence, distress has also significantly decreased.

The knowledge and understanding gained from the development of the Threat, Distress, Alleviation Model, and the phases of recovery and maintenance, can assist the development and implementation of prevention and treatment interventions. At the level of prevention, prevention programs should aim to reduce distress, threats, vulnerability and perception of importance of weight loss and appearance, as well as improve the individual's ability to cope with stressors. Prevention programs aimed at addressing these areas may also assist in the prevention of other mental illnesses. Yet further research is

needed to explore the Threat, Distress, Alleviation Model and the practicalities of implementation of prevention programs.

Once an individual has developed the disorder, interactions and interventions may vary depending on where an individual is on their journey. In the earlier stages of the disorder, when the individual is in the process of forming an attachment to the disorder (building of a haven), and may or may not be aware of the negative of the disorder, it is likely that a motivation-based intervention may be most effective. Such intervention would involve the collaborative exploration of the positives and negatives of anorexia nervosa and change.

In the process of engaging in motivation-based intervention the individual may begin to overcome denial, particularly around the presence and seriousness of the disorder. Yet other interventions that can be used to assist an individual in overcoming denial include psycho-education and basic CBT.

Once the individual realizes they have a serious disorder, which they are responsible for changing, the aim of interventions then shifts towards building motivation and creation of safety. Motivational interviewing is an intervention that can assist creating motivation to change, while CBT and elements of ACT can assist in maintaining motivation, as can the support of others. Safety is created within the therapeutic relationship, as well as through improving relationships with family and friends.

Only upon the individual beginning to establish motivation and safety can the individual begin the task of letting go of the old anorexia nervosa framework, and creating a new healthier framework. The process of creating a new framework varies significantly from individual to individual depending on their journey to date. However, in the process of changing a framework all individuals go through significant physical, cognitive, emotional and behavioural change, hence interventions aimed at assisting the individual in making healthy change in these areas are recommended. A number of interventions exist that can assist the individual in building a new framework, including weight restoration, medication, CBT, DBT, and ACT. Yet it is important that the interventions are not used in isolation, are tailored to meet the needs of the individual and their journey, and that the individual continues to be assisted with building motivation and creation safety throughout their journey.

Throughout the use of interventions aimed at assisting individuals on their journey towards recovery it is also important to be mindful of, and where possible address any barriers to recovery that may exist, both within and outside of the individual. Internal barriers may be addressed by improving access to motivational interviewing, skills based programs and addiction services, while external barriers can be addressed by increasing accesses to training and information for professional, as well as family and friends of individual's with anorexia nervosa. It is also important to be aware of those surrounding the individual, and incorporate them into treatment in a positive manner.

It is evident that throughout the course of anorexia nervosa the individual suffering from the disorder has different needs, but one thing that is stable throughout is the need for warmth, empathy, support and positive regard. It is hoped that the understanding of the subjective experience of anorexia nervosa gained from this research will assist others in providing the warmth, empathy, support and positive regard when interacting with individuals with anorexia nervosa, no matter where they are in their journey.

It is important to note that this research is exploratory, and findings are tentative. As noted throughout the discussion a number of methodological difficulties and potential sources of biases were encountered, including small sample size, definition of recovery, cognitive capacity, accuracy of recall and use of worlds of being. Future research is needed to explore and expand on these findings, and address potential methodological difficulties.

In chapter one you were asked to imagine walking into a room in which pieces of a puzzle were scattered on the floor. Throughout this research you have been taken on a journey of putting the puzzle together, first with being introduced to pieces from the literature, then pieces from individual experience, and then organizing the pieces into the worlds of being. From this approach and analysis a unique model was developed that meaningfully captures the subjective experience of anorexia nervosa, and phases that reflect how it changes over time. The picture painted throughout the research and encapsulated in this chapter, is the end product, the pieces all put together to create the subjective experience of anorexia nervosa. By understanding anorexia nervosa, not as

fragments, but as a whole subjective experience, increased understanding is gained, which can be used to improve interactions with individuals with anorexia nervosa, as well as assist in the development and implementation of treatments across the course of the disorder. This in turn may reduce the devastating impact that anorexia nervosa has on its sufferers, and those surrounding them.

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Appendix A: Interview Questions

In this interview I will be breaking up your experience of anorexia nervosa into three parts: onset, maintenance and recovery. This is more for practicality, and I understand that your experience with anorexia nervosa may not fall into three stages in a clear cut manner. At first I will ask you about your experiences, and then I will ask you to comment on some of the theories on anorexia nervosa. Are there any questions? If you don't understand a theory or have a question, feel free to ask.

Part I

- Can you describe for me your experience around the beginning of the disorder?
- Can you describe your experience once you had developed the disorder, that is what things were involved in maintaining the disorder?
- Can you describe your experience of treatment and recovery?
- Was there anything that hindered your recovery?

That concludes Part I of the interview. In this next part, as I noted earlier I will be asking you to comment on some theories that are currently in the field. Again this is broken into onset, maintenance and recovery, and if you do not understand or have any questions feel free to ask.

Part II

Onset

Biological

- It has been proposed that some individuals may be more biologically at risk of developing anorexia nervosa. Could you please comment on this theory and how it relates to your experience?
- It has also been proposed that puberty might be a possible factor to trigger this biological vulnerability and lead to the onset of anorexia nervosa. Some theorists have proposed that the onset of puberty is an indication of sexual maturity, that a person may not be ready for. Hence, anorexia nervosa is an attempt to stop the sexual maturation process. While others have proposed that some individuals may feel as if they are losing control of their body, as the body changes with puberty. Hence, anorexia nervosa is an attempt to regain control. Could you please comment on these theories and how they relate to your experience?
- Other theorists have suggested that individuals who develop anorexia nervosa biologically react differently to dieting, and this may lead to the development of anorexia nervosa. Could you please comment on this theory and how it relates to your experience?

Social

- We learn attitudes toward our body and ourselves from the world around us. As the media is so pervasive, there has been a focus on what we have learnt from the media. It has been proposed that the media's emphasis on the importance of appearance and thinness may play a role in the development of anorexia nervosa. Could you please comment on this theory and how it relates to your experiences?

- Rewards and punishment play a large role in our learning. The media and society tends to reward thinness, and punish obesity. Hence, an individual is motivated to become thin due to rewards that are associated with it. Could you please comment on this theory and how it relates to your experiences?
- It has also been proposed that our peers play a role in the development of anorexia nervosa. Some peer groups may convey messages regarding thinness similar to what the media does. Some peer groups may reward thinness. Again, this increases a person's motivation to become thin, and increases the risk of developing anorexia nervosa. Could you please comment on this theory and how it relates to your experiences?
- It has also been proposed that we compare ourselves to others, to try and determine what the standard is. If we compare downward, that is to people worse off than ourselves, we feel good about ourselves. If we compare upward, people we perceive as better than us, we feel negative about ourselves. It is believed this upward comparison, and the low self-worth that one feels about oneself and one's body, that accompanies such a comparison, may play a role in the onset of anorexia nervosa. Can you comment on this theory in relation to your own experiences?

Family

- It has been proposed that individuals who develop anorexia nervosa come from families where boundaries are unclear or crossed. That is, the boundaries that separate one family member's individual space, role and personality, from another family member's, are blurred or crossed. This is believed to be problematic, as it doesn't allow the individual to develop a sense of who they are or that they are in control. It is believed that anorexia nervosa may develop from this state, as the individual attempts to gain control and a sense of self. Can you comment on this theory and how it relates to your experiences?
- Others have proposed that children from families that are highly focused on food and/or achievement, are more at risk of developing anorexia nervosa. Can you comment on this theory and how it relates to your experiences?
- Poor communication within the family is also proposed to play a role in the development of anorexia nervosa, as without communication focus turns inwards. Can you comment on this theory and how it relates to your experiences?

Existential

- Life-meaning refers to what one lives for, and what gives order to one's world and one's existence. It is believed that in having meaning in one's life, one is committed to a framework to view, interpret and explain the world around oneself. This framework also helps the individual to identify goals in life, and the pursuit of goals in life aids one in perceiving one's life as significant. Without life-meaning one tends to lack goals and directions in life, this leads to anxiety and a craving for structure and control. It is proposed that it is in this state that an individual may be susceptible to developing anorexia nervosa, in an attempt to increase life-meaning, gain control, and rid themselves of anxiety. Can you comment on this theory in relation to your own experiences?
- Anorexia nervosa has also been proposed as a means of coping with the anxiety that is associated with a lack of life-meaning. As one's attention is focused on food and

the body, rather than the anxiety provoking lack of life-meaning. Can you comment on this theory in relation to your experiences?

Do you have any more comments regarding the initial development of anorexia nervosa?

Maintenance

Biological

- It has been proposed that once you begin regular food restriction this has a severe impact on your thought processes. Some examples include an initial “high” feeling, flattened mood and polarized thinking. It is believed that the effect of starvation on the body helps to maintain the disorder. Could you please comment on this theory and how they relate to your experience?

Social

- As society rewards thinness, it is believed rewards received from losing weight, such as compliments, may play a role in the maintenance of the disorder. Can you comment on this theory in relation to your own experiences?

Family

- Upon developing the disorder, power and control is gained over the family, as the family is willing to do anything to help. It is believed this power and control may play a role in the maintenance of anorexia nervosa. Can you comment on this theory in relation to your own experiences?
- It is also believed that upon developing the disorder, your sense of who you are begins to revolve around the disorder. This is another factor proposed to play a role in the maintenance of anorexia nervosa. Can you comment on this theory in relation to your own experiences?

Existential

- It has been proposed that anorexia nervosa is maintained as it superficially makes the individual feel as if they have meaning and purpose in life. The individual has goals, that can be met, that lead to a feeling of significance. Can you comment on this theory in relation to your experiences?

Do you have any other comments to make regarding the maintenance of anorexia nervosa?

Recovery

Biological

- One of the major aspects of treatment of the biological approach is the restoration of weight, as the restoration of weight reverses the impact of starvation on the brain. Can you comment on your experience of this, that is, any changes as you started to regain weight?
- Another part of treatment from the biological approach is medication - to address any depression or chemical imbalances that may be present, which may hamper recovery. Can you comment on this treatment and how it relates to your experience?

Social

- Proposed treatment of anorexia nervosa from the social approach include, challenging beliefs that maintain the disorder. Can you comment on this treatment and how it relates to your experience?

- Another aspect of treatment involves educating individuals on the media, techniques used by the media, and how to challenge the messages portrayed by the media. Can you comment on this treatment and how it relates to your experience?

Family

- Treatment from the family approach consists of family therapy, but this may take a number of forms. Some of the issues that are believed to be needed to be addressed in treatment are the boundaries between family members, and communication between family members. These issues may be addressed in family and individual therapy. Can you comment on this treatment in relation to your experiences?

Existential

- Treatment of anorexia nervosa from an existential approach focuses on life-meaning, and the restoration of life-meaning away from food and body control. Developing coping mechanisms is another important aspect of the existential approach to treating anorexia nervosa. Can you comment on this treatment in relation to your experiences?

Do you have any further comments regarding treatment and recovery?

That concludes the interview. I would like to thank you again for participating and it has been a pleasure to interview you. Do you have any questions?

Appendix B: Ethics Approval

Australian Catholic University
Brisbane Sydney Canberra Ballarat Melbourne



Human Research Ethics Committee

Committee Approval Form

Principal Investigator/Supervisor: Dr Robert Paddle Melbourne Campus
Co-Investigators: Melbourne Campus
Student Researcher: Sarah Pegrum Melbourne Campus

Ethics approval has been granted for the following project:
Interviews with recovered sufferers of anorexia

for the period: 23.3.2004 - 28.2.2005

Human Research Ethics Committee (HREC) Register Number: V2003.04-52

The following standard conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* (1999) apply:

- (i) that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
 - security of records
 - compliance with approved consent procedures and documentation
 - compliance with special conditions, and
- (ii) that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
 - proposed changes to the protocol
 - unforeseen circumstances or events
 - adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than minimum risk. There will also be random audits of a sample of projects considered to be of minimum risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

Signed: J. Allister Date: 23.3.2004
(Research Services Officer, Melbourne Campus)

Appendix C: Participant Information Letter and Consent Form

INFORMATION LETTER TO PARTICIPANTS

TITLE: A TRANSTHEORETICAL EXPLORATION OF THE COMPLEX EXPERIENCES THAT CONSTITUTES ANOREXIA NERVOSA

SUPERVISOR: DR. BOB PADDLE

CO-SUPERVISOR: DR ZITA MARKS

STUDENT RESEARCHER: SARAH NICOLE PEGRUM

PROGRAMME IN WHICH ENROLLED: Master of Psychology (Clinical)/Doctor of Philosophy

Dear Participant

The aim of this research is to increase the understanding of anorexia nervosa by exploring the recovered sufferer's experience of the disorder. The study consists of two parts; the first part aims to develop an understanding of an individual's experience of anorexia nervosa, at the stages of onset, maintenance and recovery. The second part aims to explore how the individual's experience of anorexia nervosa relates to pre-existing theory from four different psychological paradigms (biological, social-cognitive, family and existential).

This information is to be obtained during a one-to-one interview, between yourself and the student researcher, which is to be audio-taped. The interview should take approximately somewhere between 60 and 90 minutes. In such time you will be asked to describe your experience of anorexia nervosa at the stages of onset, maintenance and recovery from the disorder, and comment on a number of current theories related to anorexia nervosa.

Due to the personal nature of the topic being discussed you may experience slight discomfort. If you wish to cease their participation of the study, you may do so at any time. You can also refuse to participate in this study without feeling obliged to give a reason for the refusal.

In participating in this study you may experience the following benefits; a sense of release from talking about one's experience, and the knowledge of the possibility that participation in this study may in the future aid others with anorexia nervosa, these may leave one feeling a sense of contribution. Potential benefits for the community are an increased understanding of anorexia nervosa that may in turn improve treatment.

As your details are to be kept separate from recorded data, confidentiality of information given is assured.

Any questions regarding this project should be directed to the Supervisor.

Supervisor: Dr Bob Paddle, Ph.D; M.Phil.; B.Sci.; B.Ed.

Telephone number: (03) 9953 3124

In the School of: Psychology, ACU

Full campus address: 115 Victoria Parade,
Fitzroy
Victoria, 3065

If you would like feedback on the results of the research project they may leave your contact details on a sheet of paper and give it to the student researcher.

This study has been approved by the Human Research Ethics Committee at Australia Catholic University.

In the event that you have any complaint or concern regarding the way you have been treated during the study, or if you have any query that the Investigator or Supervisor and Student Researcher have not been able to satisfy, you may write to the Chair of the Human Research Ethics Committee (HREC) care of the nearest branch of the Research Service Unit.

VIC: Chair, HREC
C/o Research Services
Australian Catholic University
Locked Bag 4115
FITZROY VIC 3065
Tel: 03 9953 3157
Fax: 03 9953 3315

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

If you agree to participate in this project you should sign both copies of the Consent Form, retain one copy for your records and return the other copy to the Investigator or student researcher.

Yours sincerely,

Ms Sarah Pegrum

Dr Bob Paddle

CONSENT FORM

TITLE: A TRANSTHEORETICAL EXPLORATION OF THE COMPLEX
EXPERIENCES THAT CONSTITUTES ANOREXIA NERVOSA
SUPERVISOR: DR BOB PADDLE
CO-SUPERVISOR: DR ZITA MARKS
STUDENT: SARAH NICOLE PEGRUM

I _____ have read and have understood the
information provided in the Letter to Participants. Any questions I have asked have been
answered to my satisfaction. I agree to participate in this activity, realizing that I can
withdraw at any time. I consent to being audio taped. I agree that research data collected
for the study may be published or may be provided to other researchers in a form that
does not identify me in any way.

NAME OF PARTICIPANT: _____,
(block letters)

SIGNATURE: _____ DATE: _____,

SIGNATURE OF SUPERVISOR: _____,
DATE:

SIGNATURE OF CO-SUPERVISOR: _____,
DATE:

SIGNATURE OF STUDENT RESEARCHER: _____,
DATE:

Appendix D: Further Questions

QUESTIONS

1. What age were you when your anorexia began?
2. How long did you have anorexia?
3. How long have you been recovered?
4. What type of treatment did you receive?
5. How would you like to see anorexia nervosa treatments improve?