

**A critical in-depth content-analysis of popular pro-anorexia  
websites.**

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**Dissertation (article format) submitted in partial fulfillment  
of the requirements for  
the degree *Magister Artium* in Clinical Psychology  
at the Potchefstroom Campus of the North-West University.**

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## Summary

### **A critical in-depth content-analysis of popular pro-anorexia websites**

**Key words:** Anorexia, pro-anorexia websites, thin ideal, content-analysis

The internet has become a popular place for finding information and support about conditions that are felt to be misunderstood and unrecognized in health-care settings. Anorexia nervosa is such a condition as it is often accompanied by severe social disapproval and rejection by those who want the individual with anorexia to recover. Pro-anorexia websites take a positive and encouraging attitude towards eating disorders by explicitly encouraging extreme thinness, portraying anorexia nervosa as a conscious lifestyle choice and denying that it is a serious mental disorder that requires treatment. By visiting these websites, individuals with anorexia feel accepted and supported and their loneliness is alleviated. As the majority of the people who visit pro-anorexia websites are pre-pubertal and adolescent girls, it is valuable to examine the content of these websites as it is questionable whether these adolescents are able to evaluate the information critically.

This study aimed to investigate the content of pro-anorexia websites and how accurately they portray the information about anorexia. A qualitative research approach in the form of a multiple critical case study design was employed. Purposive sampling in the form of critical case sampling was used since the five most popular pro-anorexia websites represented the central phenomenon. Electronic data obtained from public documents, namely the content of the five most popular pro-anorexia websites on the internet, was analyzed inductively. Specific popular search terms used when searching for pro-anorexia websites were selected on the basis of information obtained from the online Keyword-Discovery Search Term Suggestion Tool. The most frequently listed websites dealing specifically with pro-anorexia were analyzed in an attempt to copy the search behaviour of the general public who use the internet. The top five overlapping results after comparing the top ten results of each keyword search were accessed to

search for pro-anorexia content. The written website content that adhered to the inclusion criteria of pro-anorexia content, which excluded message boards, live journals, forums, chat rooms or websites that only contain links to other pro-anorexia websites, was analyzed by means of thematic content analysis.

The main themes provided the framework for the structure of the subthemes with their supporting themes. The first main theme was *Defining Content* which refers to “what” it means to develop an anorexic persona and to live an anorexic identity. The subthemes relating to *Defining Content* include: *Ideal Self*, *Ideal Lifestyle* and *Transcendence Ideal*. The second main theme was *Instructive Content* which refers to “how” one becomes the idealized thin ideal and conveys useful information on how to encourage and maintain anorexia nervosa. *Instructive Content* was further divided into the subthemes *Deceptive Strategies*, *Self-discipline Strategies* and *Weight-Loss Strategies*.

The content of pro-anorexia websites addresses the development and maintenance of an anorexic identity by redefining the integral feature of self-discipline in anorexia nervosa as an acceptable and necessary part of the anorexic identity. The content also appeals to the perfectionistic attitudes and low self-esteem of individuals who visit these websites by providing a thin ideal which promises the achievement of perfection that they can identify with. By personifying anorexia nervosa as a god-like entity to be served and obeyed at all costs, the pro-anorexia websites could provide those with anorexia nervosa with a sense of identity and “holiness” that transcends the personal self. Furthermore, the content also redefines the unhealthy symptoms and behaviours associated with anorexia nervosa as an accepted and justified ideal lifestyle. The themes also advocate typical anorexic behaviour by providing specific strategies for self-discipline and deception which advise one on how to hide one’s weight loss and anorexic behaviour. Specific weight-loss strategies are also provided, describing how one can lose weight and maintain weight loss. Therefore the symptoms of anorexia nervosa are not advocated as harmful, dangerous or pathological according to the diagnostic criteria in the DSM-IV-TR.

The necessity for censorship of the harmful content of pro-anorexia websites in terms of media laws was highlighted. Also indicated is the importance of the advocacy role that psychologists should play in contributing to developing policies that protect vulnerable individuals against the harmful content of pro-anorexia websites. Suggestions for further research include the strengthening of offline relationships with vulnerable individuals, in a therapeutic as well as family and social context, and the effect this has on their need to visit pro-anorexia websites.

## Opsomming

### 'n Kritiese in-diepte inhoudsanalise van gewilde pro-anoreksie webwerwe

**Sleutelwoorde:** Anoreksie, anorexia nervosa, pro-anoreksie webwerwe, maerwees ideaal, inhoudsanalise

Die soeke na inligting en ondersteuning op die internet oor toestande wat as misverstaan en onaanvaarbaar in gesondheidsorg-instellings beskou word, raak meer gewild. Anorexia nervosa is so 'n toestand, want dit gaan dikwels gepaard met ernstige sosiale afkeuring en verwerping deur diegene wat graag wil hê dat die individu met anoreksie moet herstel. Pro-anoreksie webwerwe neem 'n positiewe en bemoedigende houding in teenoor eetversteurings deur uitdruklik uiterste maerwees aan te moedig, anorexia nervosa as 'n bewuste leefstylkeuse uit te beeld en sodoende te ontken dat dit 'n ernstige psigiatriese versteuring is wat behandeling verg. Deur hierdie webwerwe te besoek, voel die individue met anoreksie aanvaar en ondersteun en word hul eensaamheid verlig. Aangesien die meerderheid pro-anoreksie webwerfbesoekers pre-geslagsrype en adolessente meisies is, is dit waardevol om die inhoud van hierdie webwerwe te ondersoek, omdat hierdie adolessente se vermoë om dié inligting krities te evalueer, bevraagteken word.

Die doel van hierdie studie was om die inhoud van pro-anoreksie webwerwe, asook die akkuraatheid daarvan te ondersoek. 'n Kwalitatiewe navorsingsbenadering in die vorm van 'n meervoudige kritiese gevallestudie-ontwerp is gebruik. Doelgerigte steekproefneming in die vorm van kritiese gevallestekproefneming is gebruik aangesien die vyf gewildste pro-anoreksie webwerwe die sentrale verskynsel verteenwoordig. Elektroniese data wat van openbare dokumente verkry is, naamlik die inhoud van die vyf gewildste pro-anoreksie webwerwe op die internet, is induktief ontleed. Die gewildste soekterme wat gebruik is om pro-anoreksi ewebwerwe op te spoor, is op grond van inligting verkry van die aanlyn "Keyword-Discovery Search Term Suggestion Tool" gekies. Sodoende is daar gepoog om die internet soektog gedrag van die algemene publiek wat op soek is na pro-anoreksie webwerwe na te boots. Die

geskrewe inhoud van die gekose webwerwe wat aan die insluitingskriteria vir pro-anoreksie webwerwe voldoen het, naamlik wat nie boodskap borde, aanlyn-joernale, forums, kletskamers of webwerwe wat net skakels na ander pro-anoreksie webwerwe bevat, insluit nie, is deur middel van tematiese inhoudsanalise ontleed.

Hooftemas was die raamwerk vir die struktuur van die subtemas met hul ondersteunende temas. Die eerste hoofteema wat geïdentifiseer is, is *Definiërende Inhoud* wat verwys na “wat” dit beteken om ’n anoreksiese persona te ontwikkel en ’n anoreksiese identiteit uit te leef. Die subtemas wat verband hou met *Definiërende Inhoud* is: *Ideale Self*, *Ideale Leefstyl* en *Transendensie Ideaal*. Die tweede hoofteema wat geïdentifiseer is, is *Instruktiwe inhoud* wat verwys na “hoe” ’n mens die geïdealiseerde maerwees ideaal kan bereik en verskaf nuttige inligting oor die bevordering en instandhouding van anorexia nervosa. *Instruktiwe Inhoud* is verder verdeel in die subtemas *Misleidings-*, *Self-Dissipline-* en *Gewigsverliesstrategie*.

Die inhoud van pro-anoreksie webwerwe moedig die ontwikkeling en instandhouding van ’n anoreksiese identiteit aan deur die integrale kenmerke van selfdissipline in anorexia nervosa as ’n aanvaarbare en noodsaaklike deel van die anoreksiese identiteit te herdefinieer. Die inhoud beroep ook aan die perfeksionistiese houdings en lae self-beeld van individue wat hierdie webwerwe besoek deur die voorsiening van ’n maerwees ideaal waarmee hulle kan identifiseer en wat die belofte van die bereiking van volmaaktheid inhou. Pro-anoreksie webwerwe verpersoonlik anoreksie as ’n “goddelike” entiteit en beeld dit uit as iets goeds wat ten alle koste gedien en gehoorsaam behoort te word. Sodoende, gee die inhoud aan diegene met anoreksie ’n sin van identiteit en heiligheid wat die persoonlike self te bowe gaan. Verder herdefinieer die inhoud ook die ongesonde simptome en gedrag wat verband hou met anorexia nervosa as ’n aanvaarde en geregverdigde ideale leefstyl. Die simptome van anorexia nervosa word dus as skadeloos voorgehou. Spesifieke self-dissipline- en gewigverliesstrategieë wat verduidelik hoe mens gewig kan verloor en die gewigsverlies kan behou en wegsteek, word ook op die webwerwevoorsien. Die

feit dat anorexia nervosa gevaarlik of patologies is volgens die diagnostiese kriteria van die DSM-IV-TR, word verskuil en derhalwe as 'n antwoord op eksistensiële lewenskwesties voorgestel.

Voorstelle vir verdere navorsing sluit die versterking van aflyn verhoudings met kwesbare individue, binne terapeutiese- sowel as familie- en sosiale kontekste in, en watter uitwerking dit het op hul behoefte om pro-anoreksie webwerwete besoek. Ten slotte word die noodsaaklikheid vir die sensuur van pro-anoreksie webtuistes ingevolge media-wette uitgelig. Gevolglik word die belangrikheid van die voorspraak rol aangedui, wat sielkundiges in beleidsontwikkeling behoort te vertolk ter beskerming van kwesbare individue teen die skadelike inhoud van pro-anoreksie webtuistes.

## Preface

- This thesis was prepared in article format, as indicated in rule A.14.4.2 of the calendar of the North-West University, Potchefstroom Campus.
- The manuscript was formatted according to the American Psychological Association 6<sup>th</sup> edition. Font: New Times Roman; Font size: 11; Line spacing: 1.5 and the author's instructions of the *International Journal of Eating Disorders*.
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25 April 2012

To whom it may concern

We, the co-authors and supervisors, hereby give consent for Odette dos Santosto submit the following manuscript for purposes of a dissertation (article format): A critical in-depth content-analysis of popular pro-anorexia websites.

It may also be submitted to the *International Journal of Eating Disorders* for publication.

Sincerely

---

Dr D. K. Kirsten

Supervisor

---

Prof. K. F. H. Botha

Assistant Supervisor

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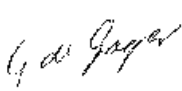
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**Manuscript: A critical in-depth content-analysis of popular pro-anorexia websites**

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### Abstract

**Objective:** The purpose of this study was to analyze the content of pro-anorexia websites and how accurately the information about anorexia are portrayed.

**Method:** Electronic data was obtained from the content of the five most popular pro-anorexia websites on the internet and analyzed by means of thematic content analysis.

**Results:** Main themes were: *Defining Content* which explains “what” it means to live an anorexic identity; and *Instructive Content* which provides guidelines on “how” to reach the idealized thinness ideal. Anorexia nervosa is personified and idealized as a good, harmless and “godlike” entity, and is depicted as an answer to life’s existential matters. Its’ pathological nature according to the diagnostic criteria in the DSM-IV-TR, is ignored.

**Discussion:** The importance of the advocacy role that psychologists should play in to the development of policies that protect vulnerable individuals against the harmful content of pro-anorexia websites were highlighted.

**Word count:** 145 words

### **A critical in-depth content-analysis of popular pro-anorexia websites**

The internet is seen as an important tool for obtaining some form of health-related information (Johnsen, Rosenvinge, & Gammon, 2002). The internet also enables various kinds of online communities to form, in that it links people with shared identities or interests to a common, global network (Creeber & Martin, 2009). According to Cline and Haynes (2001) online activity includes searching for health-related data, interaction with professionals and involvement in web-based support groups. Christensen and Griffiths (2000) claim that possible explanations for the internet as a dominant and popular source of information, are that it is not restricted by time constraints, it allows information to cross vast distances, it enables people to locate and disseminate information quickly, and it allows interactivity and covers a wide range of topics. Communication through the internet has also become more popular as a result of the increasing ease of use, decreasing cost (Mulveen & Hepworth, 2006), and the maintained anonymity of those who both seek and provide health-related information (Pingree et al., 1996). Therefore, access to online information has become easily accessible to the general public.

When considering online activity relating to searching for health information, specifically concerning anorexia nervosa, a content analysis of 170 anorexia-related websites by Chesley, Alberts, Klein, and Kreipe (2003) found that the mean rate of visitors to recovery sites was 27 878, though the mean rate of visitors to anti-recovery sites was higher, namely 34 998. Although online information can be legitimate in terms of providing accurate advice about prevention and supportive interventions with the goal of getting better and promoting healthy behaviours, it can also provide inaccurate information and promote unhealthy and destructive behaviours (Lapinski, 2006). It seems that more internet users searching for health-related information concerning anorexia visit such inaccurate websites. The internet also provides a popular place for finding support about conditions that are felt to be misunderstood and unrecognized in healthcare settings (Davison, Pennebaker, & Dickerson, 2000). The internet has reduced the costs of expressing unpopular, marginalized or pathological desires and of seeking others with these shared preferences (Bell, 2007). Involvement in web-based support groups is popular and powerful, and is

growing as a result of the inherent anarchic freedom of the internet (Mulveen & Hepworth, 2006). In other words, the lack of control over information shared within these web-based support groups and the unregulated use of this information (Harshbarger, Ahlers-Schmidt, Mayans, Mayans, & Hawkins, 2009) allows for the acceptance and sharing of possibly inaccurate, unhelpful and dangerous support. One such type of emerging “extreme community” or web-based support group based on unpopular preferences is the pro-anorexia websites. These websites take a positive and encouraging attitude towards eating disorders by explicitly encouraging extreme thinness, portraying anorexia nervosa, which can be defined as self-induced starvation because of a relentless drive for thinness (Sadock & Sadock, 2007), as a conscious lifestyle choice (Bardone-Cone & Cass, 2007), and denying that it is a serious mental disorder which requires treatment (Anon, n.d. as cited in Sharpe, Musiat, Knapton, & Schmidt, 2011).

Having first come to attention in the late 1990s (Sena-Becker, 2007), pro-anorexia websites have expanded over the past few years and emerged as online movements that support and provide a sense of community to individuals who have anorexia (Norris, Boydell, Pinhas, & Katzman, 2006). Anorexia nervosa as a clinical condition is accompanied by severe social disapproval and rejection by those who want the individual with anorexia to recover. This leads to experiences of social isolation, loneliness and being misunderstood. Pro-anorexia websites may be the only supportive community where individuals, who do not want to recover from anorexia or stop their life-threatening behaviour, are unconditionally accepted and supported (Williams & Reid, 2007) and where their loneliness can be alleviated (Csipke & Horne, 2007). This is particularly true for adolescents who, when struggling to consolidate a solid sense of identity, tend to over-identify with a clique or group (Sadock & Sadock, 2007), which includes those found online. As such, this form of social support may provide the opportunity for attachment and a sense of connectedness and in doing so, play an integral role in the development of core aspects of girls’ or women’s identities.

When considering the social construction of reality from a narrative perspective, Halse, Honey, and Boughtwood (2007) point out that the discourses of communities have powerful effects on their

members. They introduce and establish certain realities and truths by providing particular ways of thinking about the world that resonate with the members in shaping and fuelling their subjectivity. The discourses on pro-anorexia websites contribute to the validation of pro-anorexia thoughts and behaviours as normal and acceptable to the online community (Gavin, Rodham, & Poyer, 2008). Pro-anorexia websites become a community where anorexia nervosa, which is an extremely significant component of individuals with anorexia's identities (Gavin et al., 2008), can be accessed and understood in alternative ways as part of their identity through the narratives that they express on, as well as the narratives provided by, these websites (Parr, 1999 as cited in Dias, 2010). A study conducted by Gavin et al., (2008) found that involvement in pro-anorexia websites increases the importance of the alternative, pro-anorexia identity in the lives of group members and leads to greater self-acceptance of that identity. This is achieved through narratives that alter the expected cultural scripts and push the boundaries of what is unsayable, untellable and unacceptable in other contexts (Chase, 1995 as cited in Dias, 2010).

Pro-anorexia websites, however, also provide encouragement for those with anorexia and adopt an "anti-recovery" view of the condition (Fox, Ward, & O'Rourke, 2005). They glorify and encourage anorexia nervosa as a way of life (Grunwald, Wesemann, & Rall, 2008) through visual aids, such as photos of dangerously thin models, encouraging and inspiring quotes, as well as specific advice and instructions on how to stick to extreme diets and disguise them from others (Martijn, Smeets, Jansen, Hoeymans, & Schoemaker, 2009). The visual content of extremely thin models and celebrities, accompanied by the verbal content that encourages and promotes the visual content might contribute to the internalization of the thin ideal. Internalization of the thin ideal refers to the extent to which an individual "buys into" socially defined ideals of attractiveness and engages in behaviours aimed at achieving these ideals (Thompson & Stice, 2001). Research has shown that the mass media can fuel eating disorders such as anorexia nervosa by constructing the norm of a thin female body as the ideal (Saukko, 2006), as well as highlighting how important and desirable it is to be thin and that achieving thinness will result in success and happiness (Abraham & Llewellyn-Jones, 2001). The internalization of

the thin ideal represented by the thinness norms could therefore lead to an increase in eating disorder symptoms, especially in young women (Ahern, Bennett, & Hetherington, 2008).

Although only some of the young women or adolescents who are exposed to the thin ideal are vulnerable to the development of an eating disorder, the viewing of pro-anorexia websites by young women in general results in lower self-esteem, lower appearance self-efficacy and increased perceived weight (Bardone-Cone & Cass, 2006; 2007). Young women who have particular difficulty with establishing autonomy, a sense of selfhood, and whose self-images are based on weight and body shape, are at greater risk of developing anorexia nervosa (Sadock & Sadock, 2007). Accordingly they are probably prone to be more vulnerable to the effects of viewing pro-anorexia websites. From a psychoanalytic developmental perspective, these vulnerable young women experience a discrepancy between wanting to become and develop their individual selves, and looking for a world that provides clarity and purpose (Izzard & Barden, 2001). Their inability to integrate and make sense of this discrepancy often leads to acts of extraordinary self-discipline in their attempts to develop a sense of stability in terms of individuality and autonomy (Sadock & Sadock, 2007). Pro-anorexia websites could appear to provide stability in the form of the thin ideal sought by young women who feel uncertain about the development of their identity.

Mulveen and Hepworth (2006) state that the most common aspect of pro-anorexia websites is their specific instructions for initiating and maintaining anorexia nervosa. Although many pro-anorexia websites have warning text for potential visitors concerning the content and possible negative consequences of viewing the websites, the effect of these warnings can increase a visitor's interest in or the potential influence of pro-anorexia websites. Many visitors may interpret warning text as thwarting their freedom to access the websites (Martijn et al., 2009). Statistics provided by Norris et al. (2006) indicate that: 92% of pro-anorexia websites contain "thinspirational" content which is the term used to refer to visual images of extremely thin models and celebrities, accompanied by motivational quotes that encourage thinness. Furthermore, 67% of pro-anorexia websites contain "Tips and Tricks" which are

aimed at facilitating weight loss. “Tips and Tricks” range from suggestions such as the use of laxatives and advice on exactly how to restrict food intake, to tips on how to hide the restriction of food intake from family and friends. Two-thirds of pro-anorexia websites provide information pertaining specifically to caloric content which includes “negative calorie foods” (food that apparently uses more energy to digest than the energy supplied by the food itself), techniques to avoid calorie intake as well as the number of calories burned when taking part in certain activities. Up to 75% of pro-anorexia websites contain creative expressions of anorexia nervosa in the form of poems, stories and creeds that centre on weight, self-image and emotion. From the social psychology perspective, selves are created within contexts and take into account the values and norms of the others likely to participate in that context (Oyserman, 2005). In the context of pro-anorexia websites, anorexia may therefore become a socially constructed identity which is encouraged by the content of pro-anorexia websites.

Although pro-anorexia websites offer support and acceptance to individuals who are suffering from anorexia nervosa but are not in recovery (Martijn et al., 2009), their content is controversial and dangerous (Bardone-Cone & Cass, 2006). Such content encourages and promotes this pathological self-harming condition and self-defeating behaviours by helping people to continue their weight loss and conceal the disease from others (Harshbarger et al., 2009). Consequently, the true well-being of the individual as a unique person is not the main concern or focus of support, but instead the “anorexic identity” is.

Furthermore, according to Norris et al. (2006) the content on pro-anorexia websites represents the single most serious medical risk for individuals who visit these websites, especially as regards the promotion of fasts and laxatives which can cause serious harm (Williams & Reid, 2007). Examples of the harmful medical risks associated with anorexia nervosa include a slow heartbeat, low blood pressure, dehydration, oedema (swelling of the hands and feet), constipation and bloating, lanugo (very fine facial and body hair) and hair loss (Abraham & Llewellyn-Jones, 2001). The long-term medical consequences include amenorrhoea, which is the absence of the menstrual cycle, infertility and the development of

osteoporosis later on in life (Abraham & Llewellyn-Jones, 2001). Although it is evident that anorexia nervosa is a serious psychological disorder with dangerous medical and associated psychological consequences and requires immediate treatment (Barlow & Durand, 2005), there seems to be no acknowledgement of these consequences in the content of pro-anorexia websites. Instead, according to Fox et al., (2005), pro-anorexia websites reject models of self-starvation as something to be cured depicting anorexia instead as experiential and inspirational.

It is estimated that there are over 500 pro-anorexia websites on the internet (Chesley et al., 2003). However, gathering the specifics of such information is extremely difficult (Brotsky & Giles, 2007). This highlights the relevance of this study. It is important to be aware of the way in which these websites convey information about anorexia nervosa to the public, as many of them are still directly accessible from public search engines. Although many pro-anorexia websites have been removed from website servers as a result of violating their terms of service, online petitions were made against the disappearance of pro-anorexia websites. Though searching for them may initially send searchers to an error page, links can be found that eventually allow access to these sites (Williams & Reid, 2007). Therefore the internet service providers have still not been successful in banning pro-anorexia websites. Exposure to pro-anorexia websites could encourage an anti-recovery attitude towards anorexia nervosa which opposes models such as the medical and psycho-social models that see anorexia as an illness requiring treatment (Fox et al., 2005). The information on pro-anorexia websites could also serve as potentially harmful coping strategies for those who view recovery as a simplistic solution, one which ignores the underlying, unresolved pain associated with anorexia (Fox et al., 2005).

It was found that the majority of the people who visit pro-anorexia websites are young and female (Csipke & Horne, 2007), in particular Western pre-pubertal and adolescent girls (Sadock & Sadock, 2007). For this reason it is valuable to examine the content of pro-anorexia websites as it is questionable whether these adolescents are able to evaluate this information critically (Norris et al., 2006). One of the first published studies examining the content of pro-anorexia websites both qualitatively and

quantitatively was that of Norris et al. (2006). Although a thematic analysis of the content of pro-anorexia websites was conducted as part of Norris's study, the generated themes were presented in rather broad terms and represented an overview of the themes found in the content of pro-anorexia websites. There remains a gap in terms of an in-depth exploration of the content of pro-anorexia websites focusing on the alternative identity and behaviours that they provide, along with concrete validation of the accuracy of the depicted information. Such an analysis could provide useful information to caretakers, parents and professionals working with patients who have anorexia to better understand "anti-recovery" views, so that more effective treatment and support can be given to those who may hold such views (Williams & Reid, 2007). Information about the content of pro-anorexia websites could also be helpful for policy development as stipulated in the scope of practice of professionals (including clinical psychologists) who are registered with the Health Professions Council of South Africa (HPCSA, 2011). All psychologists can play an advocacy role and speak out against pro-anorexia websites at a policy level, so that more specific and clear ethical guidelines can be formulated to combat the damaging psychological content of these websites. Furthermore, an awareness of the techniques used by individuals with anorexia nervosa to lose weight and conceal weight loss could make it difficult for them to conceal their disease; this could better equip professionals, caretakers and parents to recognize the signs of anorexia early in treatment (Harshbarger, et al., 2009).

Hence the research questions of this study focus on what the content of the five most popular pro-anorexia websites is, and how accurately these websites depict the information about anorexia nervosa.

### **Aims of the study**

The aims of this study were to investigate a) the content of pro-anorexia websites, and b) how accurately the information about anorexia on such websites is portrayed.

## METHOD

### **Research Design**

A qualitative research approach (Yoon & Johnson, 2008) in the form of a multiple critical case study design (Cresswell, 2005; Lloyd-Jones, 2003) was employed. This involved inductively analyzing the electronic data obtained from public documents, namely the content of the five most popular pro-anorexia websites on the internet.

### **Sampling and Participants**

Purposive sampling in the form of critical case sampling was used, since the five most popular pro-anorexia websites, namely Ana Thin Beauty (Angels Pro Ana Webring, 2009), Fairy-Princess (Freewebs, 2006), Thin is Better (Webs, 2009), The Chronicles of Alice (Angels Pro Ana Webring, 2006) and Ana's Thinspiration: Thin is beautiful (Chelsea, n.d.) represented the central phenomenon, in dramatic terms (Cresswell, 2005).

### **Procedure**

An online search was conducted by typing the terms "pro-anorexia", "pro-ana" and "pro ana sites" into one internet search engine, namely Google Chrome. The search engine was determined by ratings from Nielsen Net-Ratings (Sullivan, 2006), a leading internet analysis service that rates search engines according to their popularity and range of use by the general public. The specific search terms were selected on the basis of information obtained from the Keyword-Discovery Search Term Suggestion Tool (Trellian, 2009). This tool allows users to view the most recent counts of search activity related to one or more specific keywords (Norris et al., 2006). The most frequently listed websites dealing specifically with pro-anorexia were then analyzed in an attempt to copy the search behaviour of the general public who use the internet. The top ten results (depending on the relevance of the titles of the sites to specifically pro-anorexia websites) of each key word search were compared and the top five

overlapping results which include websites and their primary links (links found on the opening page of a website), (Norris et al., 2006) were accessed to look for pro-anorexia content. The inclusion criteria included websites containing pro-anorexia content. The exclusion criteria included message boards, live journals, forums, chat rooms or websites that only contain links to other pro-anorexia websites as the main source of information. The electronic data was downloaded and saved in text format in Microsoft Office Word 2007 in order to maintain the original content of the websites at the time of access. Norris et al. (2006) state that this allows the exact page content to be recalled at a later date as rankings of websites and inter-page content change regularly.

### **Data Collection**

The electronic data presented on pro-anorexia websites was saved in text format in Microsoft Office Word 2007 in order to maintain the original content of the websites at the time of access. These text copies served as public documents to be analyzed (Cresswell, 2005). In addition, a literature study was conducted, focusing on the internet as an increasingly important tool for health-related information, the emergence of pro-anorexia websites, the content of pro-anorexia websites, the role of pro-anorexia websites in creating norms for the female body, the role of pro-anorexia websites in the social construction of identity and anorexia nervosa as a psychological illness. Electronic information was retrieved from sources such as Google Chrome, Google Scholar, the EBSCO database and Science Direct.

### **Data analysis**

The model represented in Table 1 was used to guide the process of thematic analysis (Braun & Clarke, 2006). The written website content was analyzed by making use of thematic content analysis which is a method used to identify, analyse and report patterns or themes within data (Braun & Clarke, 2006). An inductive approach was taken to the thematic content analysis which tends to be more data-driven, meaning that the identified themes link strongly to the data itself and are not determined by pre-existing theoretical knowledge. An inductive approach also provides a rich thematic description of the data.

Open coding, which is the process of identifying interesting features within the data (Braun & Clarke, 2006), was employed at a semantic level with a computer software program, Atlas.ti™ 5.2.0, by tagging and naming selections of text within the data. All coded data was then compared and organized into relevant meaningful groups, a process known as axial coding. This was done specifically by highlighting in the same colour the coded data that linked with one another. Each colour (representing an organized group) was given a description and all coded data best fitting that description was highlighted with the same colour and was in this way included in the group. Initial identified codes along with their descriptions were compared, combined with one another and then refined to form overall themes.

Each website's data was read and re-read, and coded and re-coded, to ensure that the researcher and co-coder were satisfied with the thematic analysis. The initial coding was modified after the researcher compared the initial coding of the first website to the subsequent websites. Main themes provided the framework for the structure of the subthemes with their supporting themes and were illustrated in a mind-map (see Figure 1).

### **Trustworthiness**

Guba's criteria for a trustworthy qualitative study were met by employing the strategies outlined by Bailey (2007). Credibility, which concerns the believability and authenticity of the findings, was met by using multiple public documents as data and using inductive thematic content analysis; by having the coding and emerging themes peer-reviewed by a researcher who has experience of thematic content analysis; and by providing a thick description of the phenomenon being studied. Transferability, which concerns the external validity of the findings or the extent to which they can be applied to other situations, was assured by the critical purposive sampling of sites; providing a thorough description of the research context and research methodology; and grounding the findings in the literature which enables readers to transfer the findings to other situations. Dependability, which concerns reliability and consistency, was met by leaving an audit trail. This could enable further researchers to repeat the work. Confirmability, which concerns objectivity and neutrality, was assured by having the researcher keep a reflective diary to

check her own position in relation to the data (Bailey, 2007); and triangulation by means of using the five most popular pro-anorexia websites to provide the researcher with the maximum opportunity to analyze critical sites of the phenomenon (Bailey, 2007; Denzin & Lincoln, 2008; Terre Blanche, Durrheim, & Painter, 2006).

### **Ethical considerations**

Ethical approval was obtained from the Ethics Committee of the Faculty of Health Sciences, North-West University (project number 06K25). As the data that was used was openly available on the internet and accessible to the general public, no formal permission was needed to access it. Confidentiality was maintained by not providing the full names of the webmasters (in cases where this information was given), as the goal of the research was not focused on who provides the information on pro-anorexia websites, but rather how they depict the information. Informed consent was not necessary as the data used did not involve specific people or research participants.

## **RESULTS**

The main themes, their subthemes and supportive themes are illustrated in Figure 1.

### **Defining Content**

This is the first main theme and it describes “what” it means to develop an anorexic persona and to live an anorexic identity. To be anorexic is described as being an ideal self as opposed to the real self and anorexic behaviour as an ideal lifestyle and a way to transcend oneself to live for a higher purpose or to follow a higher being.

**Ideal Self** refers to the anorexia persona which becomes a ready-made but desired identity, which contrasts to the undesirable self. The ideal self holds the promise of obtaining self-discipline and perfection.

*Self-Discipline* is an idealized state of being, which reflects an admirable achievement of forcing oneself to do something that is especially difficult or unpleasant and the ability to stick to the rules. Ignoring basic human needs such as hunger and thirst in order to obtain the “thin ideal goal” is an example of this.

*Eating is for the weak. Starve for self-control; self-control makes you strong*  
(Webs, 2009)

Adherence to self-discipline leads to positive- and a lack thereof to negative consequences.

*Positive Consequences* are portrayed as the intrapersonal and intra-psychic rewards or desirable qualities one obtains by living and maintaining a disciplined, anorexic life. Intrapersonal rewards hold the promise of social status, social acceptance and social superiority.

*No woman can be too thin for me. The thinner she is, the more she's a goddess  
in my eyes* (Angels Pro Ana Webring, 2006)

*Giving in to food shows weakness, be strong and you will be better than  
everyone else* (Angels Pro Ana Webring, 2006)

*Positive Consequences* also hold the promise of obtaining intra-psychic rewards such as a sense of inner strength, happiness, self-worth and freedom from one's problems.

*It knows how to make me thin, how to make me pretty, how to make me loveable*  
(Webs, 2009)

*Nothing is so bad that not eating won't cure.* (Freewebs, 2006)

*Negative Consequences* are portrayed as the punishment which acts as a deterrent to force anorexia followers to maintain strict self-control. Negative consequences also manifest at inter-and intrapersonal levels, namely social rejection and inferiority, negative affect and a low sense of self-worth.

*Your bad luck finding a decent man continues, primarily because you're such a goddamned fat-assed hog. (Angels Pro Ana Webring, 2006)*

*Food is mean and sneaky. It tricks you into eating it and it works on you from the inside out, making you fat, bloated, ugly, and unhappy. (Chelsea, n.d.)*

*Perfection Ideal* is described as a desired state of being complete and without faults or weaknesses, and refers to the physical and inner perfection achieved by extreme thinness.

*Physical Perfection* is achieved when one's outward appearance conforms to the ultimate anorexic standard of beauty and perfection, namely extreme thinness. Certain physical appearances are considered beautiful and perfect, for example:

*But I feel beautiful, perfect. I am all pale bone and bone-pale flesh and pale hair and I am light. I am like some fairy thing. (Freewebs, 2006)*

*Supermodels are the most beautiful women in the world...and are they fat? NO!*  
(Angels Pro Ana Webring, 2009)

*Inner Perfection* differs from physical perfection as it is described as a sense of being unique, special and complete. It is a sense of perfection that transcends physical boundaries but that can only be obtained through physical perfection, namely from anorexia.

*Anorexia is a skill perfected only by a few. The chosen, the pure, the flawless.*  
(Webs, 2009)

**Ideal Lifestyle** is the second subtheme which redefines and describes anorexia nervosa as an ideal way of life, while at the same time denying its severity and inherent danger. This is achieved by focusing on the inaccurate positive outcomes that can be gained, such as ideal body images, by engaging in harmful behaviour.

*Redefining Unhealthy Habits as Healthy* presents anorexic behaviour as harmless and acceptable, which includes food restriction tactics, unhealthy food portions, excessive exercise and the excessive use of weight-loss supplements to curb hunger pangs.

*The longer you fast, the easier it is to continue with it.* (Webs, 2009)

*Take anti heartburn pills if you're really hungry. They neutralize the acid that builds up and makes you hungry.* (Webs, 2009)

*Ignoring Physical Signs and Symptoms of Anorexia* redefines the meaning of uncomfortable, painful physical sensations that are related to the restriction of food intake and physical evidence of being underweight, as harmless and enjoyable. By embracing these sensations, physical indications that one's body is not well are ignored and redefined as being the result of eating too much.

*Learn to love that empty feeling in your stomach.* (Chelsea, n.d.)

*...you tell yourself that those "hunger pangs" are just a stomach ache from eating too much an hour/day/week ago.* (Angels Pro Ana Webring, 2006)

**Transcendence Ideal** conveys anorexia as a means of living for something that is greater than oneself or an entity that transcends oneself and allows one to exist beyond the limits of one's human self. Two supporting categories were identified:

*Anorexia as a god-like Entity* is a personification of anorexia nervosa as a god-like entity or belief system equal to a religious affiliation. Anorexia is personified as a "higher power" and self-transcendence is achieved by upholding the concurrent anorexic lifestyle as a "godly value system". This god-like entity controls and directs anorexic people's lives and provides strength to achieve the goals of perfection and maintain anorexic behaviour and an underweight state. Individuals with anorexia nervosa are encouraged to submit to, obey and love anorexia nervosa as a god-like entity and the commandments associated with it. Anorexia is personified in three prominent ways, namely as a controller, redeemer and friend.

The *Controller* controls all aspects of one's life, pushing one's limits and forcing one to behave in certain ways in order to maintain anorexic behaviour. Once anorexia nervosa becomes the controlling force, the anorexic cannot break free from it:

*Pretty soon I am telling you not only what to do with food, but what to do ALL of the time." "I'll force you into the bathroom, onto your knees, staring into the void of the toilet bowl. Your fingers will be inserted into your throat, and, not without a great deal of pain, your food binge will come up."*(Webs, 2009)

The *Redeemer* is able to provide deliverance from problems and impurities and it cleanses and purifies:

*When you feel empty, it means that you are empty of your sins.*(Chelsea, n.d.)

The *Friend* is depicted as loving and supportive and is given the nick name "Ana". Individuals with anorexia are expected to remain loyal friends to "Ana" as she claims to be loyal to them.

*I am your only friend, and I am the only one you need to please.* (Webs, 2009)

*Values and Commandments* are portrayed as certain behaviours and beliefs that must be adopted and employed in order to serve "Ana". Value systems are important, as they form an integral part of the establishment and maintenance of collective identities (Turner, Oakes, Haslam & McGarty, 1994) based on the groups that one relates to or the roles one performs (Deaux, Reid, Mizrahi, & Ethier, 1995). The most important commandments are obedience, devotion and surrender.

*Obedience* is portrayed as the expectation that one should unquestioningly listen to, follow or obey "god-given" commandments in order to please the "god". These god-like commandments include obedience to beliefs and feelings about oneself, expectations of what one should look like and behaviours that one must engage in to maintain anorexia and anorexic behaviour. Commands include the demand to have poor self-esteem; consider oneself to be worthless and pathetic; have a distorted body image; always

to believe that one is not thin enough; to restrict food intake and not to eat; to be and remain extremely thin and always feel guilty after eating:

*I believe that I am the most vile, worthless and useless person ever to have existed on this planet, and that I am totally unworthy of anyone's time and attention.*(Chelsea, n.d.)

*Thou shall not eat without feeling guilty.* (Angels Pro Ana Webring, 2009)

*Devotion* is perceived as dedicating oneself and remaining faithful to the god-like value system and not rejecting or neglecting it under any circumstances, for example:

*I will worship you and pledge to be a faithful servant until death does us part.*  
(Freewebs, 2006)

*Surrender* is portrayed as surrendering oneself entirely to the god-like value system and sacrificing all of one's control over oneself in order to allow anorexia nervosa to control one entirely:

*I offer you my soul, my heart and my bodily functions. I give you all my earthly possessions.* (Angels Pro Ana Webring, 2009)

*Punishment and Reward* are related to the consequences of either obeying or disobeying the above-mentioned commands. If one does not obey the commands that form part of the god-like value system, anorexia nervosa as a god-like entity will punish one for one's disobedience:

*You know that if you go and eat right now, you will end up standing over the toilet, puking it all up until you see blood and water and your stomach is aching.*(Chelsea, n.d.)

Similarly, if one obeys the commands that make up part of the god-like value system, one will be rewarded accordingly in terms of one's physical appearance, as illustrated by the following:

*“Show me you love me and can keep me a secret and stay away from food and I'll give you those ‘nicely’ shaped little thighs.”(Chelsea, n.d.)*

### **Instructive Content**

This is the second main theme of this main category, and refers to “how” one becomes the idealized thin ideal and is of an instructive nature. It conveys useful information on how to encourage and maintain anorexia nervosa.

**Self-Discipline Strategies** are conveyed as everyday anorexia guidelines which should be put into effect and which help control one’s body and life. These strategies include physical conditioning, refocusing one’s attention, cognitive reframing, and visual indoctrination.

*Physical Reconditioning* is portrayed as training oneself to behave in a particular way or to become used to a particular condition. This is achieved by ignoring or sabotaging the body’s natural reaction to hunger and satiation in order to curb hunger, by teaching oneself not to eat by inflicting physical pain, and by sabotaging one’s taste and food in order to dislike food:

*Wear a rubber band around your wrist, snap it against your skin when you're tempted to eat. (Webs, 2009)*

*...make your food totally gross, sabotage it. Add too much salt or pepper, mutilate it. Do anything to make it seem gross. (Webs, 2009)*

*Physical Reconditioning* also includes obsessive behaviours that occur as a result of one’s mind being filled with thoughts of the thin ideal and losing weight, and not being able to think of anything else. Obsessive behaviour accordingly has the goal of losing weight and involves checking rituals, excessive repetition of and involvement in physical activities and routine behaviour that must be done at specific times or in specific ways, for example:

*...you've ripped off your clothes compulsively for the sole purpose of getting the "accurate" weight 3 times a day (as a minimum here \*grin\*) (Angels Pro Ana Webring, 2006)*

*...when you've noticed that you've gained a pound and start exercising mad-style as soon as you get off the scale (Angels Pro Ana Webring, 2006)*

*Refocusing Attention* is conveyed as the ways in which one's attention can be distracted from feeling hungry as well as activities to substitute for eating, for example:

*If you get hunger strikes, go on a walk or sleep...keeping your mind off food will make them go away.*"(Chelsea, n.d.)

*Cognitive Reframing* is to change one's cognitions about food in order to reduce food intake drastically, which includes convincing oneself that: food and eating are physically harmful and dangerous; you are not hungry and therefore do not want to eat; and that you do not enjoy food, for example:

*Every calorie you eat equals another step towards destruction.* (Webs, 2009)

*Persuade yourself that you don't like a food, take your favorite food and when you look at it and think yum, think yuck instead. Even if you don't believe it at first, even just thinking it goes a very long way, and eventually you will convince yourself that you really don't like the food.* (Angels Pro Ana Webring, 2009)

*Cognitive Reframing* also includes obsessive thoughts that take over one's mind in order to encourage the restriction of food intake. Obsessive thoughts include repeating unrealistic fears about food and body image and memorizing information related to food in order to restrict calorie intake:

*...you can't sleep at night because you're worried that rice cake is gonna make you fatter if you sleep. (Angels Pro Ana Webring, 2006)*

*I believe in calorie counters as the inspired word of god, and memorize them accordingly. (Angels Pro Ana Webring, 2009)*

*Visual Indoctrination*, namely the acceptance of a belief concerning the body image ideal uncritically, is facilitated by exposing oneself to visual images of what is perceived to be the ideal body image and comparing oneself to these images. In this way the acceptance of the thin ideal as absolute is forced, disallowing alternative beliefs about body image to be considered. This also motivates stricter self-control. Although it is difficult to “measure” the types of photographs accurately, the models in these photos are presented as sensual and attractive, which supports the written content that encourages viewers to strive to obtain such a look.

*Thinspiration is your best friend. You think you've lost weight? Trust me you haven't. Just check out the models online and you'll realise that. (Angels Pro Ana Webring, 2009)*

**Deceptive Strategies** involve specific tips and instructions about how to hide one's weight loss and anorexic behaviour from others to prevent them from becoming concerned about you and forcing you to seek help and eat more (i.e. in order to protect one's anorexia and anorexic behaviour). Deceptive strategies include the following:

*Lying* involves deceiving others into believing that you have already eaten when you are in a situation where you are expected to eat or when it is possible that family members or friends are suspicious of your eating habits:

*Eat a tiny piece of onion (like 1/2 in square). That way you have onion breath and people believe you really ate. (Chelsea, n.d.)*

*Hiding Physical Signs* is portrayed as disguising both a small frame as well as other physical signs of anorexia so that others do not become suspicious of one's eating disorder. This includes signs such as nail discoloration, pale skin, bad breath and tooth discolouration and is illustrated by the following examples:

*Wear bold colours and patterns with loose clothing. It distracts from smallness and is bold.* (Webs, 2009)

*Wear nail polish to cover up the bluish tinge that starvation gives your fingernails so others don't suspect it as much. Rinse your mouth with baking soda dissolved in water after purging. This helps neutralize acids and spares your teeth and mouth somewhat.* (Angels Pro Ana Webring, 2009)

*Appearing to Weigh More* involves ways in which you can attempt to deceive specifically doctors into believing that you weigh more than you actually do when going for a check-up:

*...going to a doctor means drinking a gallon of water and stashing all your change in your pockets and socks. Just in case he/she wants to weigh you.*  
(Angels Pro Ana Webring, 2006)

*Isolation* involves isolating oneself from the friendship and company of others in order to hide the fact that one is not eating, as well as to avoid situations in which one might be forced to eat:

*You avoid and eventually lose your friends because they might want to go out for pizza or something equally evil.* (Angels Pro Ana Webring, 2006)

**Weight-Loss Strategies** provide specific instructions about ways in which one can lose weight as well as information on how one can maintain weight loss. The following four weight-loss strategies were identified:

*Calorie Tips* provide information on how more calories can be burnt during exercise and during everyday routine activities, as well the calorie counts of foods that are lower in calories and can be substituted for high calorie foods:

*Keep your house cold, wear skimpy clothes around your house to keep cold!*

*You will raise your metabolism and burn calories.* (Angels Pro Ana Webring, 2009)

*Eat a tossed or garden salad appetizer; only 20-30 calories and helps fill you up before the entree arrives.* (Freewebs, 2006)

*Weight-Loss Supplements* provide information about which specific substances can be used to aid as well as to maintain weight loss:

*Pro Plus are caffeine tablets which you can just buy from most shops, no need for calorie infested coffee, they are also easy to take if and when you do eat anything.*(Chelsea, n.d.)

*Fasting* describes extreme food restriction in the form of specific types of fasts as well as information about the benefits of these fasts, which include weight loss:

*...10 days on a Water Fast gives the same benefits and weight loss as a 30 day juice fast! You can alternate between juice and water on a fast if you need to but your body won't enter ketosis and there will be more urge to eat.* (Webs, 2009)

*Therapeutic Techniques* involve instructions about how one can apply techniques that one has learnt in psychotherapy, to help overcome anorexia and anorexic behaviour, to assist one with weight loss and maintaining this loss:

*I'm taking the skills I've learned in therapy to help me combat my eating disorder, (and wait, what's this?!) I'm using them to combat a binge" / "...Just notice the experience. Step back. Detach. Unglue yourself from your opinions, beliefs, judgements. (Angels Pro Ana Webring, 2006)*

## **DISCUSSION**

This study explored the content of the five most popular pro-anorexia websites and how accurately they depict information about anorexia nervosa as a serious psychological disorder. Two main types of content were identified, namely defining content, which is about “what” it means to live an anorexic identity, and instructive content which refers to “how” one becomes the idealized thin ideal. It appears that the content addresses the development and maintenance of anorexic identity as well as anorexic behaviour which contribute to the maintenance of anorexia nervosa as a disorder. The content, however, depicts anorexia nervosa as a god-like entity that is good and does not provide a truthful, helpful description of anorexia and its associated behaviours as harmful and dangerous. Therefore, these sites advocate typical anorexic behaviour and symptoms that are regarded as pathological according to the diagnostic criteria in the DSM-IV-TR (American Psychiatric Association, 2000). This is consistent with findings by Norris et al. (2006), Lapinski (2006), and Juarascio, Shoaib, and Timko (2010).

Furthermore, the content of pro-anorexia websites assists a person to construct an idealized anorexic identity. When considering the social construction of identity, Gergen and Gergen (2003) propose that people should create stories of the self within social life by means of dialogue available in the public sphere, and then also live according to these stories in social life. In a developmental context, adolescents are particularly vulnerable to social influences on the construction of their identities. Erikson's Psycho-Social Stages of Development (Atalay, 2007) indicate that adolescence is marked by the pursuit to find “wholeness” or a “sense of inner identity”. Achieving these goals depends on a progressive continuity between how adolescents conceive themselves and how they perceive others to see

them and expect of them (Atalay, 2007). If the establishment of this continuity is unsuccessful, adolescents are left with a diffuse sense of identity and confusion about social roles; then they often adopt roles that are unconventional according to social norms (Crawford, Cohen, Johnson, Sneed, & Brook, 2004). As it is difficult for individuals with culturally stigmatized identities, such as the individual with anorexia, to find opportunities for identification in the public sphere (Frable, 1993; McKenna & Bargh, 1998), pro-anorexia websites seem to provide a sanctuary for them in the form of an online community. Here discourses about the anorexic identity and what it means to live according to this identity can be shared and validated. The anorexic identity is strengthened through the normalization and minimization of pathological cognitions, emotions and behaviours (Gavin et al., 2008; Schroeder, 2010; Tierney, 2006). It appeals particularly to adolescents, as they probably obtain some sense of continuity between their diffused sense of identity and what they perceive the online society provided by these websites sees them as. This has problematic implications because the greater the link between one's self-concept and one's eating disorder, the greater the difficulty with accepting treatment (Tan, Hope, & Stewart, 2003).

The finding that self-discipline forms an integral part of what it means to live according to the anorexic identity is consistent with the literature. The individual with anorexia's need to control eating in particular stems from an initial need to gain self-control. This is a result of the interaction between a sense of ineffectiveness and perfectionism and low self-esteem (Fairburn, Shafran, & Cooper, 1999). Low self-esteem and feelings of incompetence have been cited as significant risk factors in the development and maintenance of anorexic symptoms (Paterson et al., 2011; Wilksch & Wade, 2004) and is affected by feelings of being an outsider or not belonging anywhere (Lönqvist et al., 2009), and insufficient social relationships (Iniewicz, 2005 as cited in Karpowicz, Skärsäter, & Nevonen, 2009). The direct and concrete results of self-control, in the form of restricting food intake, results in an increasing sense of self-worth. This makes the restriction of food intake even more inviting, especially to those who perceive themselves as failures (Fairburn et al., 1999). Self-discipline is socially reinforced by the content of pro-anorexia websites because they convey the benefits or positive consequences of self-discipline. Therefore,

through the discourse provided by the content of pro-anorexia websites, the underlying vulnerability of low self-esteem is addressed and used to redefine the integral feature of self-discipline in anorexia nervosa as an acceptable and necessary part of the anorexic identity.

The social construction of identity from a postmodern perspective argues that certain social conditions have produced a heightened awareness of appearance and style in people (Ward, 2003). This phenomenon, especially in Western cultures, along with the low self-esteem displayed by those who have eating disorders, could trigger perfectionistic attitudes in individuals in the form of a distorted body image (Barlow & Durand, 2005). Images, as portrayed by the media, act to create a dream world of ideal lifestyles for one to fantasize about and identify with (Ward, 2003). Pro-anorexia websites appeal to the perfectionistic attitudes and low self-esteem of individuals who are most likely to visit these websites by providing a thin ideal they can identify with. Achieving this ideal will reflect the achievement of perfection, both physically and internally. Physical perfection then results in a sense of being unique, special and complete, which appeals to those with low self-esteem and provides a sense of identity. These qualities are not, however, true self-acceptance or fulfilment as they are based on other people's standards and expectations of being able to achieve the thin ideal. This identity is adopted because of the appealing meaning that the discourse of the pro-anorexia websites gives it.

The transcendence ideal portrayed on pro-anorexia websites provides individuals with anorexia nervosa with a religious belief and associated values that can be internalized and obeyed, in an attempt to give meaning to their anorexic behaviour and consequently, their sense of identity. The meanings given to their symptoms are influenced by the beliefs and language of the subculture portrayed by pro-anorexia websites (Griffin & Berry, 2003). These meanings and values encourage devotion to anorexia as a "god", which could provide those with anorexia nervosa with a sense of identity and "holiness" that transcends the personal self. This is consistent with the findings by Day and Keys (2008) that religious identities allow women who self-starve to understand themselves as virtuous and hyper-feminine. Although the surrendering of personal needs to a power or purpose that is perceived as being higher than the self is

usually expected to motivate altruistic behaviours, it can also motivate destructive behaviours (Koltko-Rivera, 2006). This appears to be the case when considered in the context of the transcendence ideal portrayed in pro-anorexia websites. The transcendence ideal may also appeal to those suffering from anorexia nervosa as it they could use it as a defence mechanism to cope with a variety of unconscious psychological anxieties (Banks, 1996). So the personification of anorexia nervosa as a “god” may help them to cope with anxieties such as a lack of autonomy and individuality, poor self-esteem and social- or self-rejection. It could also give them an excuse for not actively engaging in constructing their own identity because of the ready-made values given to them, reducing their risk of making mistakes. As the religious metaphor for anorexia nervosa is internalized and obeyed, these individuals’ emotions and unconscious drives are addressed and they become socialized into the beliefs the metaphor provides (Banks, 1996). In this way, the underlying motives of self-starvation are given an acceptable meaning which in turn encourages anorexic behaviour (Banks, 1996).

The inaccurate portrayal of anorexia nervosa by redefining the unhealthy symptoms and behaviours associated with anorexia nervosa as healthy, contributes to the reinforcement of disordered eating. This is consistent with findings by Sharpe et al. (2011) who report that pro-anorexia websites are designed to help individuals with anorexia nervosa maintain disordered eating patterns as they wish to achieve the perceived benefits provided by the inaccurate portrayal of the disorder. This content could also prompt the development of disordered eating patterns in healthy individuals (Brotsky & Giles, 2007; Lapinski, 2006). The inaccurate portrayal of anorexia nervosa as an accepted and justified ideal lifestyle is most likely adopted because pro-anorexia websites offer a form of support where anorexia and anorexic behaviour is not stigmatized or defined as something that must be treated (McCabe, 2009). The emotional significance of visitors’ identification with the content of the websites determines the extent to which the values and knowledge portrayed contributes to their social identity and self-concept (Morton & Duck, 2000). This is especially true of those who disagree with the medical model of eating disorders, particularly the view that thinness and self-starvation warrant medical attention (Day & Keys, 2008;

Hammersley & Treseder, 2007). Consequently this strengthens their acceptance, development and maintenance of an “anti-recovery” view that is part of the anorexic identity according to the social construction of identity. Pro-anorexia website users who are hesitant to seek treatment for their eating disorders as a result of uncertainty about healthcare professionals’ ability to adequately address their concerns (Rouleau & von Ranson, 2011), may be particularly vulnerable to the acceptance of this anti-recovery view of anorexia nervosa. In this way, the dangerous medical consequences of anorexia nervosa are ignored and treatment opportunities missed.

Disordered eating is also reinforced by content that explicitly describes how one can become the idealized thin person. This is consistent with findings in a study conducted by Csipke and Horne (2007) that found that passive visitors to pro-anorexia websites (visitors who do not actively participate with other visitors on pro-anorexia websites) and who view content that specifically describes how to sustain their disorder, are vulnerable to the reinforcement and worsening of their symptoms of eating disorder. This type of content includes specific self-discipline and deceptive strategies which advise one on how to hide one’s weight loss and anorexic behaviour, as well as specific weight-loss strategies describing how one can lose weight and maintain weight loss. Burning calories, exercise and using weight-loss supplements correlate with other qualitative findings concerning weight-loss strategies (Lapinski, 2006). By providing such blatant, detailed descriptions of “anti-recovery” behaviour, the content of pro-anorexia websites exploits the ambivalence that many people with anorexia have between being terrified of having to give up their anorexia and the acceptance of recovery (Christodoulou, 2012). This type of content has been reported to worsen eating disorder symptoms in anorexics by prompting feelings of being triggered to act on eating disorder-related urges, such as obsessions about nutritional information, as well as by teaching recovering anorexics inappropriate compensatory behaviours (Schroeder, 2010). Furthermore, instead of encouraging recovery, the provision of deceptive strategies may prevent users of pro-anorexia websites from receiving treatment. By hiding their symptoms and behaviour, it is more difficult for family members or concerned friends, who usually play an important role in initiating treatment, to recognize

obvious symptoms (Vitousek, Watson, & Wilson, 1998). The fear of negative responses such as being forced into treatment by family members or friends (Brotzky & Giles, 2007) strengthens the need for deceptive strategies, which are explicitly provided on pro-anorexia websites.

### **LIMITATIONS**

The volatile nature of pro-anorexia websites was a limitation to the study as, at the time when the websites were selected, there was no guarantee as to how long a site would remain on the internet. This limited the variety of individual websites considered for selection. Due to the small number of websites chosen for this study, another limitation could be that other pro-anorexia websites could yield different results. However, even though only five websites were used, the content of these websites was ample and diverse, and taking into consideration the comprehensive thematic analysis of the data, the trustworthiness of the current findings is ensured.

### **RECOMMENDATIONS**

At present, there is no internationally enforceable legislation that could address censorship over the harmful content of pro-anorexia websites. The reason is that the content of these sites is user generated so there is no corporate entity or legal owner that can be held responsible (Christodoulou, 2012). This should highlight the responsibility of health care professionals, parents and caregivers in addressing the influence of pro-anorexia websites at an interpersonal and offline social level. It is important, especially for psychologists working with at-risk and anorexic patients, to be aware of the content of pro-anorexia websites so that they can gain a better understanding of the way in which these patients define anorexia nervosa, their “anti-recovery” views and their deceptive behaviour. In this way, psychologists in particular may be able to address the social needs of these individuals. It is recommended that further research should explore the effect of strengthening offline relationships with these individuals, in a therapeutic context, and of providing them with lower-risk alternatives to visiting pro-anorexia websites. Further research could also focus on extending the strengthening of offline relationships to involve caregivers, family, friends and/or other health care practitioners, and the effects that this could

have on decreasing the need to visit pro-anorexia websites as well as providing a more appealing “recovery” view of anorexia nervosa.

## CONCLUSION

The results of this study suggest that pro-anorexia websites play a pathological role in strengthening and supporting the development and maintenance of the anorexic identity as well as anorexic behaviour. The deceptive content is appealing to those who are at-risk or vulnerable to the development of an eating disorder as well as to those who have anorexia nervosa. The necessity for censorship of the harmful content of pro-anorexia websites in terms of media laws and in particular the regulation of the dangerous, self-harming content was highlighted by this study. The importance of the advocacy role that psychologists should play in contributing to the development of policies that protect vulnerable individuals against the harmful content of pro-anorexia websites, is also indicated.

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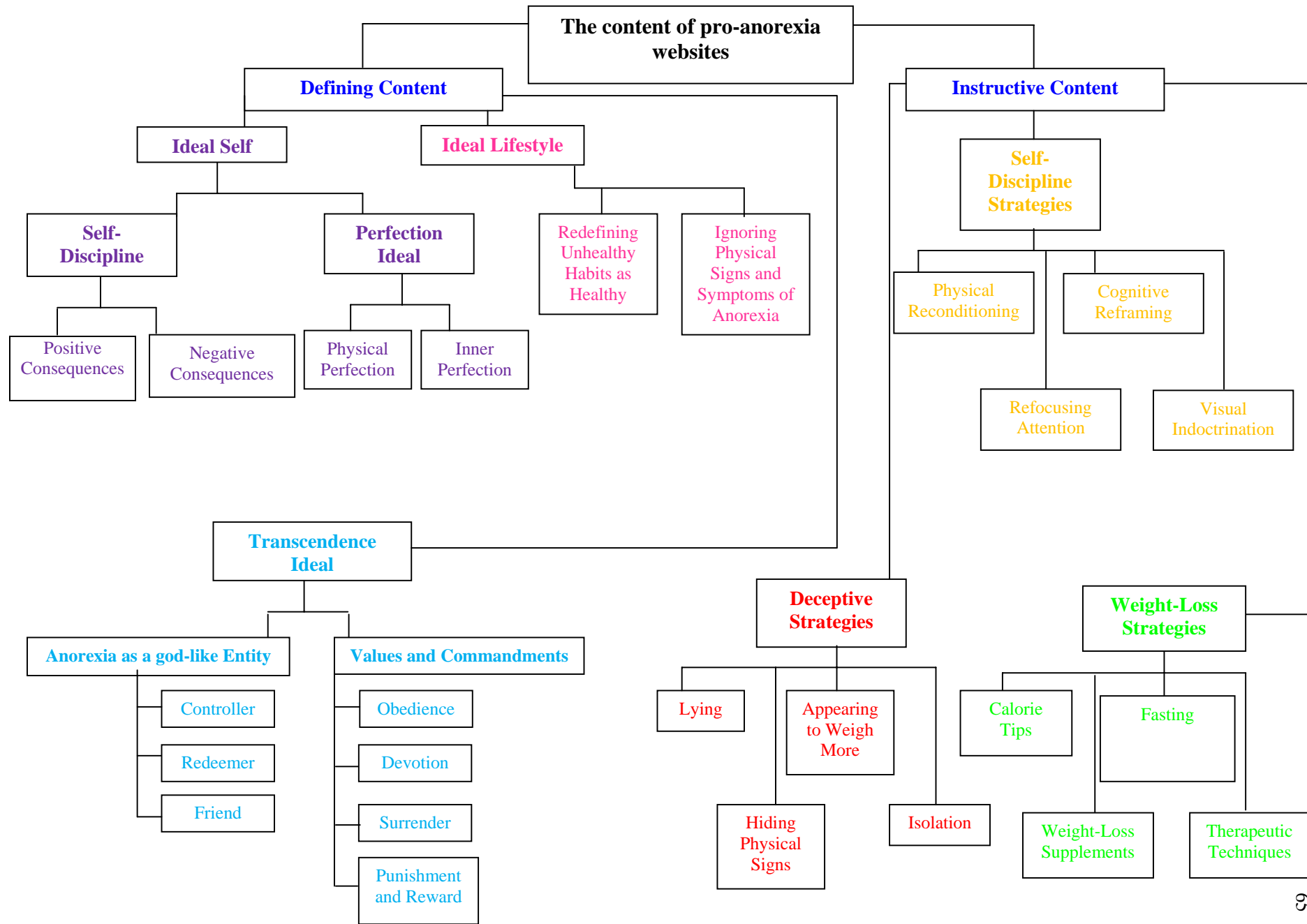
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## Appendix A

Table 1: Phases of thematic content analysis (Braun &amp; Clarke, 2006)

Phase	Description of the process
<b>1. Familiarizing oneself with the data:</b>	Transcribing data, reading and re-reading the data, noting down initial ideas
<b>2. Generating initial codes:</b>	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code
<b>3. Searching for themes:</b>	Collating codes into potential themes, gathering all data relevant to each potential theme
<b>4. Reviewing themes:</b>	Checking if the themes work in relation to the coded extracts and the entire data set, generating a thematic “map” of the analysis
<b>5. Defining and naming the themes:</b>	Ongoing analysis to refine the specifics of each theme and the overall story the analysis tells, generating clear definitions and names for each theme.
<b>6. Producing the report:</b>	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back to the research question and literature, producing a report of the analysis



APPENDIX B

Figure 1: The content of pro-anorexia websites