The Discursive Construction of Diabulimia: A Corpus Linguistic Examination of Online Health Communication

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Abstract

This study is the first of its kind to examine the discursive construction of diabulimia. Diabulimia is a contested disease characterised by the deliberate restriction of insulin dosage by people with insulin-dependent diabetes in order to control their weight. The analysis takes a mixed methods approach, combining quantitative corpus linguistic techniques with qualitative discourse analytic methods to examine how diabulimia is discursively constructed in three English-speaking diabetes internet fora. By examining the discursive construction of diabulimia in this context, this study explores this emerging health phenomenon from the perspectives of those individuals who, in many cases, have lived, first-hand experience of it. The corpus analysis reveals the discursive construction of diabulimia in this context to be deeply influenced by medicalisation and the neoliberal imperative of autonomous diabetes self-management. Individuals with diabetes who restrict their insulin dosage to control their weight are likely to articulate their experiences and concerns using decidedly medicalising language, construing these experiences as the symptoms of a disease (diabulimia). It is also found that the demands of diabetes self-management figure in and shape individuals' experiences and understandings of diabulimia in varying and conflicting ways. By providing novel insight into subjective experiences and understandings of diabulimia, the findings reported in this study give voice to those individuals affected by it, findings which also bear important implications for health care practitioners likely to encounter such individuals in the future.

This thesis is dedicated to my dad, Colin John Brookes (1955–2014).

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1. Introduction

1.1. Introducing diabulimia

This thesis is about diabulimia and the people who experience it and talk about it online. Diabulimia does not have official disease status, but the term is used by sufferers and other stakeholders to denote the use of insulin restriction by people with insulin-dependent diabetes mellitus (henceforth diabetes) to control their body weight. Though it has yet to attain official disease status, diabulimia is nonetheless estimated to have affected as much as 30 per cent of the global population of people experiencing insulin-dependent diabetes (Zabka, 2011). By depriving their bodies of much-needed insulin, those individuals experiencing diabulimia are subject to quite severe, even fatal, biological consequences, which are explored in greater detail in the next chapter.

A likely consequence of its contested disease status is that diabulimia has hitherto remained worryingly under-researched. Darbar and Mokha (2008: 32) remark on the 'extremely limited' availability of research into diabulimia, while Hughes (2010: 11) more recently commented on the 'scant' literature dedicated to this topic. Of the limited number of studies that have sought to shed some light on this still relatively unknown health phenomenon, the majority has adopted a decidedly positivist perspective (Thorne, 1997), for example providing details regarding the prevalence of diabulimia, as well as its possible biological causes. Though the findings from such research constitute an undoubted aid to health care practitioners seeking to gain an even rudimentary understanding of diabulimia, they reveal very little (if anything at all) about sufferers' social, lived experiences of it. Furthermore, that small number of studies that have set foot onto this sociological terrain have done so very

tentatively, usually as an aside, and invariably without recourse to authentic data representative of the perspectives of those individuals with first-hand, lived experience of diabulimia. Instead, these researchers have chosen to focus on interviews with practitioners (Mathieu, 2008), or anecdotal or researcher-invented sufferer accounts (Sharma, 2013). As such, the voices of non-experts with first-hand knowledge and experience of diabulimia have been excluded from the research on this topic to-date and, it seems fair to surmise, muted from the broader discussion and debate surrounding this topic as a consequence. This absence, allied with the paucity of discourse-based research into diabulimia generally, means that, in empirical terms at least, we know very little if anything at all about individuals' lived, subjective experiences and understandings of this emerging health phenomenon (Balfe, 2007; Goebel-Fabbri et al., 2008; Powers et al., 2012).

This gap in knowledge is not just a cause for academic curiosity, but might actually constitute a significant obstacle to effective clinical intervention. For instance, Sharma (2013: 14) describes the way in which diabulimia has 'mystified' those practitioners who she claims lack awareness of the seriousness of this health phenomenon, as well as the ways and extent to which it impacts upon the lives of sufferers. Consequently, both scholars and health care practitioners alike have urged and encouraged research that explores the subjective experiences and understandings of diabulimia from the perspectives of those who have first-hand, lived experience of it (Hasken et al., 2010; Weinger and Beverly, 2010; Shih, 2011).

1.2. Research aims

The aim of the present study is to address the afore-discussed knowledge gap by examining how diabulimia is discursively constructed by sufferers and non-experts who are communicating about it in the context of online, peer-to-peer health-related fora. Guided by a broadly socially constructive view of discourse (Berger and Luckmann, 1966; Burr, 1995, 2003, 2015), the analysis will pursue the following research aims:

- Examine the discourses drawn upon by the forum contributors to construct diabulimia, interpreting these in terms of their constitutive potential and considering what they reveal about subjective experiences and understandings of this contested condition;

- Unpack the discourses identified throughout the analysis (a) in the macro sense in terms of the broader social forces and processes that shape them, and (b) in the micro sense in terms of their potential functions and possible motivations at the local, interactional level (van Dijk, 1997)

This study takes a corpus-based approach to discourse analysis (Baker, 2006). Discourse analysis can be thought of here as an method or collection of methods for analysing language that examine 'patterns of language across texts as well as the social and cultural contexts in which the texts occur' (Paltridge, 2012: 1-2). Corpus linguistics refers to the use of specialist computer programs to examine large collections of naturally-occurring language data (McEnery and Wilson, 2001). In the present study I combine these methods, taking a corpus-based approach to discourse analysis to identify and examine the discourses surrounding

diabulimia in the forum messages. The use of quantitative corpus techniques allows for a sharp focus on the most frequent and salient linguistic patterns evident in the data, features which are then examined in closer, fine grain detail through a more qualitative, theory-informed approach discourse analysis.

By exploring the discursive construction of diabulimia in the context of peer-to-peer online diabetes fora, this study will provide what a timely counterbalance to the positivist perspective that presently dominates the limited research on this topic to-date, and which has so far failed to account for the experiences and understandings of sufferers and non-experts. Though the primary aim of this study is to provide insight into the discursive construction of diabulimia, and to decipher what this might reveal about individuals' subjective experiences and understandings of it, this condition's necessary dual diagnostic component means that the findings that emerge from the forthcoming corpus analysis will also contribute additional insight into individuals' experiences and understandings of diabetes, as well shedding further light, moreover, on the communicative and discursive dynamics of health-related internet fora more generally.

In aiming to provide novel and empirical insight into an emerging and severely under-researched health phenomenon, this study has a clear, real world problem-oriented objective that fits squarely within the remit of applied linguistics, understood here as 'the theoretical and empirical investigation of real-world problems in which language is a central issue' (Brumfit, 1995: 27; see also: Cook, 2003). While this study might therefore be described most fittingly as an exercise in applied corpus linguistics (Harvey, 2012: 373), it also embraces a necessarily interdisciplinary approach to the topic of diabulimia, integrating as it does perspectives which draw on insights not only from linguistics, but also medical

sociology and psychology in order to enrich the analysis. This thesis has therefore been written with a consciously interdisciplinary audience in mind, with the intention that the findings reported will be of interest not only to linguists, but also to researchers interested in the social and discursive dynamics of health and illness from a wide range of disciplinary backgrounds, as well as health care practitioners who are likely to encounter individuals affected by diabulimia in the future.

1.3. Thesis structure

This thesis is organised into nine chapters. Following this introduction, Chapter Two lays the theoretical groundwork for the study by providing more background information about diabulimia, outlining the version of discourse to which my analysis subscribes, and introducing health-related internet fora as the communicative setting from which the data analysed in this study derives. The third chapter details the study's methodology, describing the particular corpus-based approach to discourse analysis taken, and providing an account of the design and construction of the Diabulimia Fora Corpus. Chapter Four, the first analytical chapter, offers a quantitative survey of the forum messages in the corpus using frequency information, before determining a series of keyword-driven thematic and lexical entry points into the data, three of which form the basis of the analysis that follows. The fifth chapter examines the discourse surrounding the keyword *diabulimia* itself. Chapters Six and Seven explore the discursive construction of diabulimia from the thematic and lexical perspectives of *insulin* and *diabetes*, respectively, explicating the discourses surrounding these keywords and interpreting them in terms of how they contribute to the broader construction of diabulimia in the forum messages. Following this, Chapter Eight, a discussion chapter, considers the roles, first of the social process of medicalisation and then of the neoliberal

imperative of autonomous diabetes self-management, in influencing and shaping the discursive construction of diabulimia in this context. The ninth and final chapter of this thesis concludes the study by summarising its main findings and considering the implications that these might have for health care practice, before reflecting on my methodological approach and gesturing towards areas for research on the topic of diabulimia in the future.

2. Background: diabulimia, discourse and internet health fora

2.1. Diabulimia: the brief history of a contested condition

2.1.1. Prevalence and biological consequences

Although firm prevalence figures for diabulimia have yet to be established, it is estimated that as many as 30 per cent of people experiencing insulin-dependent diabetes are likely to have intentionally restricted their insulin use in order to control their weight at some point in their lives (Goebel-Fabbri et al., 2008). Diabulimia can therefore be understood to constitute a significantly pervasive health issue amongst people experiencing diabetes, and one which affects the lives of a considerable portion of this clinical population, prompting Shaban (2013: 104) to describe the practice of deliberate insulin restriction as 'the most favoured means of weight control in people with type 1 diabetes'. Diabulimia is most prevalent amongst adolescents (Colton et al., 2009; Hasken et al., 2010; Callum and Lewis, 2014) and females, with the ratio of males to females affected by this health phenomenon estimated to be approximately ten females to every one male (Shih, 2011: 7). Although no race-related prevalence patterns have been reported for diabulimia, the heightened incidence of type 1 diabetes amongst people of South Asian, African and African-Caribbean origin is well established (International Diabetes Federation (IDF), 2012).

Diabulimia has been reported to have a number of serious biological consequences for those suffering from it, the most frequently cited of which include, but are not limited to: diabetic neuropathy (nerve damage resulting from high blood glucose), kidney disease and diabetic retinopathy, as well as increased susceptibility to potentially fatal macrovascular

complications, such as heart attack and stroke (Rydall et al., 1997; Mathieu, 2008; Shaban, 2013). Such is the severity of these potential outcomes that studies into the long-term effects of diabulimia report that, compared to non-insulin-restricting controls, the risk of death from diabetes complications increases more than three-fold for those who deliberately restrict their insulin dosage to control their weight (Goebel-Fabbri et al., 2008). Moreover, compared to those who take the requisite insulin dosage, life expectancy in individuals affected by diabulimia is estimated to be reducible by as much as thirteen years (Shih, 2011: 25). Indeed, it is in recognition of these severe and potentially fatal outcomes that Zabka (2011: e221) describes diabulimia as 'a flirtatious relationship with toxicity and fatality'.

2.1.2. Medical status

As alluded to briefly in the previous chapter, the scarcity of socially-oriented discursive inquiry into diabulimia is likely to have been caused, at least in part, by the fact that the condition has yet to attain official disease. Diabulimia is a contested illness: although those suffering from it and other stakeholders (including friends and relatives) might think and even speak about it as if it were a disease, in reality, diabulimia is not recognised as such by the medical community. Consequently, it is not actually possible for one to receive an official diabulimia diagnosis from any medical practitioner. The fifth and latest edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) (American Psychiatric Association, 2013), an authority on the classification of mental disorders, does not recognise diabulimia as a discrete mental disorder, but instead offers the following labels by which this health phenomenon might be classified:

(a) ‘inappropriate compensatory purging behaviour’, under the category heading ‘misuse of medications for weight loss’;

(b) bulimia nervosa;

(c) eating disorders not otherwise specified (EDNOS)

The appropriation of the above DSM categories to label diabulimia has, however, met with staunch opposition from non-experts and some academic researchers, who argue that these descriptors fail to capture adequately diabulimia’s – what they perceive to be pivotal – dual diagnostic component (i.e. insulin restriction *and* diabetes). To wit, some researchers have proposed that a terminological distinction be made between diabulimia and other (eating and purging) disorders that do not share this dual diagnostic component (Shaw and Favazza, 2010); as Sharma (2013: 19) writes,

> Unfortunately, the presence of Type 1 diabetes only appends a much deeper level of psychopathology – lending patients a higher probability of developing disordered eating than their normal peers. This is one reason why it is so crucial that “diabulimia” be resolved from other “inappropriate compensatory behaviours” and general symptoms of eating disorders. It involves a completely discrete demographic with markedly different psychological baselines, an exclusive method of weight control, and even distinct impetuses.

Likewise, other researchers have advocated a distinction be drawn between disorders involving the withholding of insulin and those involving the restriction of other medications and substances (Shaw and Favazza, 2010). Moreover, to classify diabulimia either as a form of bulimia nervosa (henceforth bulimia) or as an Eating Disorder Not Otherwise Specified

(EDNOS), is arguably to linguistically conflate these various conditions and in turn risk overlooking the likely nuanced subjective experiences and perspectives of those people who suffer from them.

In the absence of a ubiquitously accepted label, the last couple decades have witnessed the emergence of a plethora of names and umbrella terms used to describe and subsume the health phenomenon that I have referred to as diabulimia. In addition to the term *diabulimia* itself, the origins of which will be explored later in this section, these terms include: *insulin abuse* (Schuler et al., 1989), *insulin misuse* (Bryden et al., 1999), *insulin omission* (Affenito and Adams, 2001), *insulin resistance* (Riddle, 2002), *insulin manipulation* (Battaglia et al., 2006), and *deliberate insulin omission/underdosing* (Shaw and Favazza, 2010). Another umbrella term under which diabulimia might be categorised is *Eating Disorder in Diabetes Mellitus Type 1 / 2 (ED-DMT1 / 2)*, a nomenclature proposed by an international group of clinicians at a conference in Minnesota (USA) in September 2008. Although this latter term has received some degree of clinician approval, it still fails to distinguish diabulimia from other, non-insulin-omitting eating disorders experienced by people with diabetes and has, as far as I have observed, failed to gain any significant traction amongst lay, practitioner and researcher groups alike.

The naming, or lexicalisation (Jones, 2013), of diseases and other health-related phenomena has long captured the interest of scholars researching at the interface of linguistics and what might broadly be termed health sociology (Crookshank, 1923; Cassell, 1976; Fleischman, 1999, 2001). Underlying such discussions is the understanding of the body and its ailments as cultural, medical and linguistic constructs. From such a view, the names and labels attributed to diseases are understood to have implications for the ways that both expert and non-expert

groups understand, communicate about and ultimately attempt to remedy them (Warner, 1976; Fleischman, 2001: 490). The foregoing discussion about the naming of diabulimia itself raises several important considerations concerning who does (and should) ultimately determine the name of a disease. Jammal (1988) argues that this matter lay within the remit of the lexicographer, while Fleischman (2001) proposed that diagnostic names and labels should result from specialist consensus. However, Jammal's view, though only posited in the late 1980s, might seem somewhat dated and out-of-touch to those aligning with poststructuralist notions of health as socially constructed (Brown, 1995), and although Fleischman's (2001) position most likely reflects the way in which diagnostic labels do in reality come into being, it affords rather limited scope for the role of the sufferer in the discursive construction of their own health and the diseases that they experience (Conrad and Barker, 2010).

As will be evident from my linguistic treatment of it so far, I have elected to use the term *diabulimia* throughout the pages of this thesis. As will become clearer over the course of the coming chapters, particularly Chapter Three, this terminological choice is one that carries with it rather profound methodological implications for the present study, in terms of both the data collection and subsequent analysis, and so in turn for the findings that are reported. As I have sought to show through the foregoing discussion, like most aspects of this health phenomenon, the naming of diabulimia has proved to be a source of great controversy, and a matter upon which expert and non-expert groups appear to share little (if any) common ground. For these reasons, I feel that it is important at this stage that I justify my choice to use this term, while at the same time acknowledging the criticisms directed toward it, as well as reflecting on the assumptions about this health phenomenon that might be encoded in my use of this nomenclature here. Like Fleischman (2001), I would suggest that official names for

health-related phenomena typically emerge as the products of specialist discussions and academic inquiry. However, and crucially, I also believe that any serious and meaningful judgement regarding the name of any health-related phenomenon should ideally endeavour to account for the ways that that phenomenon is labelled by non-experts, particularly those who have first-hand, lived experience of it.[1] Therefore, although the term *diabulimia* has yet to gain clinical approval, I believe that the increasing awareness of it (and concordantly the health phenomenon that it denotes), and the apparent traction that it has gained amongst both non-expert and researcher communities (but particularly the former) attest its suitability for exploring the discourses surrounding this condition in online peer-to-peer interactions.

Like the other disease labels discussed in this section so far, the term *diabulimia* has itself met with some opposition, mostly from practitioners, but also from some researchers. Practitioners in particular have been opposed to the use of this term due to its perceived lay and media connotations; it is a term that has, for some, come to be associated both with (particularly online) layperson interaction and sensationalist media reporting about a faddish and frightening teenage weight loss trend (Weinger and Beverly, 2010: 451). Meanwhile, others have taken issue with the word *diabulimia* on grounds of semantic inaccuracy. For example, Colton and colleagues (2009: 138) avoid use of the term because they argue that it

[1] This does not mean to say that lay and expert groups (particularly health care practitioners) discursively label health-related phenomena in necessarily different ways, for it is now well established in the literature on this topic that these two groups often draw upon shared linguistic resources in communication about health (Hadlow and Pitts, 1991); what Fleischman (2001: 474) describes as the 'linguistic grey area' of health-related communication.

implies what is for them a false distinction between eating disorders in people with and without diabetes. Likewise, although she uses the label diabulimia in her own work, Sharma (2013) acknowledges that the inclusion of the word 'bulimia' (as in Dia**bulimia**) – intended to signal the calorie purging aspect of the condition – might incorrectly suggest that sufferers vomit, akin to bulimia. Though these objections raise seemingly genuine concerns relating to the origin, connotations and potential semantic inaccuracies of the term *diabulimia*, to cast this nomenclature into oblivion would arguably be to risk doing same, whether intentionally or otherwise, to the health phenomenon that it denotes. Therefore, the term *diabulimia*, though far from ubiquitously accepted, and evidently fraught with controversy, does at least provide this health phenomenon with a discursive presence in contemporary research and debate. The growing cultural prominence of the term diabulimia, moreover, might suggest that this label affords sufferers and other interested non-experts with an accessible term with which they can align and through which they can seek help and advice from their peers and possibly even health care practitioners (Ruth-Sahd, Schneider and Haagen, 2009). This point is made by Sharma (2013: 12-14), who describes the word *diabulimia*, in favourable terms, as being a 'catalyst of […] awareness', suggesting that it 'grants patients a discrete nomenclature to identify with', before going on to argue that, '[p]utting a label on a pathology is a powerful preliminary step towards support manoeuvres and treatment approaches.'

As well as acknowledging these criticisms, I also acknowledge that my use of the term *diabulimia* in this thesis is likely be interpreted as a signal that I perceive the health phenomenon that it denotes to be a discrete disease, rather than a mere complication of diabetes. In light of the controversy that surrounds it, I approached this issue with an open mind, not wishing to impose my own views onto my analysis. However, it became apparent

very early on in the analysis that the contributors of the vast majority of the messages that I analysed did in fact understand diabulimia to be a disease, as reflected both in their linguistic treatment of it, and the contents of the messages themselves. For this reason, for the purposes of this study I linguistically regard diabulimia as a disease. It must be stressed that it is not the aim of this study to judge or argue for or against the clinical validity of diabulimia as a disease, for I possess neither the expertise nor the desire to resolve this particular debate here. This debate is, however, revisited briefly in the concluding chapter of the thesis. In the next part of this section I offer a linguistic reflection on the term *diabulimia*, exploring its linguistic complexion and the origins of its use.

2.1.3. Linguistic reflection on the nomenclature *diabulimia*

The term *diabulimia* is a portmanteau word constructed by means of contamination, that is, the word-building process by which two words are combined in both form and meaning to create a single word (Das, 1984: 263). In the case of *diabulimia*, the words *dia*betes and *bulimia* are fused together, broadly conveying the use of **dia**betes to lose weight, almost as a purging tool, akin to **bulimia**. As Sharma (2013: 8) puts it: '[o]riginally coined to convey the purging characteristic of bulimia nervosa, "diabulimia" stripped to its starkest definition is the "use" of diabetes […] to eliminate unwanted calories or weight.'

Like many other medical terms, *diabulimia* was likely constructed via contamination for descriptive purposes. However, another theorised function of contamination as a method of word construction, and one which might also be applicable in the case of *diabulimia*, is euphemistic circumlocution, that is, the use of an innocuous word or phrase to talk about a

taboo or sensitive topic (Lavrova, 2010). This strategy might be particularly relevant with regard to health concerns that individuals may feel embarrassed or ashamed to disclose in candid and explicit terms. On the linguistic obscuration of diseases via euphemistic circumlocution, Lavrova (2010: 227) writes,

> the designation is appropriate for being cryptic and euphemistic: it camouflages the disease, its treatment and enables the patients to freely communicate with each other without feeling the curious or condescending gazes of others […] The structural model of contamination seems to be an adequate way of camouflaging some painful notions and meanings.

As a term constructed via contamination, the nomenclature *diabulimia* might therefore offer, or at least have once offered, sufferers a code by means of which to communicate issues related to their illness to a particular circumscribed group and in a way that backgrounds the act of insulin restriction itself, perhaps to spare feelings of embarrassment or to evade anticipated negative judgement on the part of others.

Despite its relatively brief history, the exact origin of the term *diabulimia* is, much like the condition itself, the subject of contest and debate. Brink claims to have coined the term in 1987 (Brink, 1997), yet others claim that the term *diabulimia* was created by sufferers of the condition and their family members (Ruth-Sahd, Schneider and Haagen, 2009). Whatever the case may be, the term is widely understood to have entered the "blogosphere" in the early 2000s, where its popularity among sufferers and other non-expert stakeholders grew exponentially via blogs, fora and other online media. As Sharma (2013: 14) observes, '[t]he era of both the social networking website and the blogosphere witnessed the true emergence

of diabulimia into both the private as well as public consciousness.' This point is further illustrated by Shaw and Favazza who, in 2011, reported a Yahoo internet search using the query term *diabulimia* to yield over 100,000 results in blogs, newspaper /magazine articles, and television shows.

In the opening section of this chapter I have reviewed our presently limited knowledge of diabulimia, first outlining the estimated prevalence and consequences of this condition, before exploring the contemporary debate surrounding its medical status and the legitimacy of the label *diabulimia* itself. Having signalled and justified my decision to use the term *diabulimia* for the purpose of the present study, I then offered a brief reflection on the word's morphological characteristics and etymological background. Though much of the research and writing on diabulimia reviewed in this section is not of direct relevance to the present study's aims, this background information nonetheless helps to paint a picture of the contemporary issues and debates that surround diabulimia at the time of writing and, more crucially, at the time at which many of the forum messages examined in this study were composed. The next part of this chapter introduces the concept of discourse and, in particular, the broadly social constructionist version of it that I adopt for the purpose of this study.

2.2. Discourse

2.2.1. Introducing discourse

Since the 1970s the concept of discourse has been appropriated within a diverse range of areas of intellectual inquiry, all allied by a concern with the analysis of language and text, such as linguistics, psychology, philosophy and cultural studies, to name but a few. It is therefore perhaps inevitable, given the disciplinary diversity with which the concept of discourse has been taken up, that the term *discourse* has accrued a plethora of different meanings and conceptualisations within and across these areas of study (Mills, 1997: 1; Hook, 2001; Arribas-Ayllon and Walkerdine, 2008: 91). Sunderland, for instance, observes the way in which '[d]ifferent theoretical approaches conceptualize discourse and its workings in different, though overlapping, ways' (Sunderland, 2004: 6), while Baker describes the term discourse as 'problematic, as it is used in […] a number of inter-related yet different ways' (Baker, 2006: 3).

The various approaches to discourse are commonly grouped into the following categories provided by Gee (2014):

(1) discourse as language in use, with a focus on the variation of linguistic forms across different genres and text types;
(2) discourse as language 'above the sentence or above the clause' (Stubbs, 1983: 1), with a focus on the ways in which texts are structured through language; and
(3) discourse as social practice, or 'discourse with a capital D' (Gee, 2014: 46); a sociocultural approach which views discourses – in the plural – as comprising social

and ideological structures which inform the ways that individuals make sense of and communicate about the world.

The first two, more traditional approaches to discourse have the explicit aim of describing the formal and structural properties of language in use, and commonly conceive of and categorise discourse in terms of its genre or text type, or the particular social context or communicative situation in which it is produced. In the present study I am chiefly concerned with discourse in the third sense, that is, as social practice. However, and as I explore in more detail later in this section, I subscribe to the view that an analysis of discourse 'with a capital D', as it were, can be strengthened if it also acknowledges its formal and structural (i.e. linguistic) properties, in order to apprehend the ways that discourses are woven into texts (Lemke, 1995). In the next part of this section I narrow my focus to the specific social constructionist view of discourse that I take in the present study.

2.2.2. A social constructionist view of discourse

The social constructionist view of discourse that I adopt in this study draws heavily on the work of nineteenth century post-structuralist philosopher and historian, Michel Foucault. According to Foucault, discourses can be thought of as rule-governed sets of verbal and nonverbal practices that provide systematic frameworks, through which people understand, act in and communicate about the world (Foucault, 1972, 1973, 1976, 1979). Foucault was concerned with discourse in the macro sense, that is, he was interested in uncovering the ways that discourses (often subtly) govern aspects of the social world in two different, but not unrelated, ways.

Firstly, he was interested in the power of discourses to position certain kinds of institutional knowledge and ways of viewing the world as dominant, while relegating other forms of knowledge to a sub-status (see also: Fairclough, 1992). For example, the medico-scientific perspective presently dominates the ways that the body and its ailments are interpreted and talked about in Western societies, while the perspectives offered by alternative medicines are generally regarded as fictitious and in some ways fraudulent (Harvey, 2013: 6-7). Discourses, then, are neither equal nor stable. Instead, it is more useful to think of discourses as constantly competing with one another in the claim to truth status. It is this point that lays central to Foucault's thesis, for he was not interested in determining which discourses might be "true" or "false". Rather, his project was one centred on the matter of *how* discourses rise to, or lose, their "truth" status. We can surmise from this that discourses exist in 'constellations', as Sunderland (2004: 45) puts it, for a discourse's status as dominant or marginalised relates to other, usually competing, discourses around the same subject (Mills, 1997: 16). Secondly, Foucault was interested in the power of discourses to constitute those aspects of reality with which they are concerned, that is, as Foucault himself famously stated, the power of discourses to 'systematically form the objects of which they speak' (Foucault, 1972: 49).

As the forthcoming section will show, the view of discourse that I take, while influenced profoundly by the writing of Foucault, deviates from an entirely faithful Foucauldian approach in several important respects, and draws on ideas advanced within discursive psychology, critical realism and critical discourse analysis. Starting with Foucault's ideas, I will now describe in greater detail the social constructionist view of discourse that I adopt in this study. Specifically, this section outlines seven features of discourse that I view as

significant for my analysis. Accordingly, I interpret discourses to be: (i) plural, (ii) invisible, unbounded and unlimited, (iii) hierarchical, (iv) moderately constitutive, (v) constituted, (vi) actively drawn upon by individuals, and to (vii) leave traces in texts. As the forthcoming discussion shall demonstrate, while some of these features are faithful to Foucault's original conceptions of discourse, others, namely features (vi), (vii) and, to a lesser extent, (iv), signal something of a departure from Foucault's writing.

(i) Discourses are plural

Discourse can be talked about in plurality (i.e. as 'discourses'), reflecting the multiplicity of and variability in the ways of making sense of, communicating about and ultimately constructing the world that discourses afford to speakers or writers (Cameron, 2001: 5). As Burr (1995: 48) puts it, discourses 'each [have] a different story to tell about the world, a different way of representing it to the world'.

(ii) Discourses are invisible, unbounded and unlimited

Discourses can be regarded as invisible, unbounded and limitless; we cannot measure a discourse or say where it begins or where it ends. As Sunderland (2004) argues, 'discourses are not bounded and not even visible; they are historical and transient; they are continually produced and reproduced' (3), she continues, 'discourse[s] [are] omnipresent and enduringly fluid, and there is no shortage of discourse to analyse' (5). It is perhaps their insidious nature that makes discourses all the more powerful; they are routinely taken-for-granted and attain common-sense status, which means they often evade critical and analytical inspection.

(iii) Discourses are hierarchical

Discourses are not all equal; some discourses are more pervasive and have greater influence than others, and such "dominant" discourses can marginalize, or even exclude altogether, other so-called "minority" discourses (van Dijk, 2008). This feature of discourse is demonstrated by the dominance of medico-scientific perspectives on the body and its ailments explored earlier in this section.

One might automatically (and falsely) assume that dominant discourses are produced exclusively by so-called "dominant" groups. However, it is also possible for traditionally marginalised groups to draw on "dominant" discourses (van Dijk, 2008) when constructing their understandings and experiences of the world. Taking as an example the medical encounter, it is generally accepted by health sociologists and health communication scholars that this communicative setting traditionally affords greater interactional power to the practitioner than it does to the patient, power that which usually manifests in the practitioner's superior command of the technical, medico-scientific discourses used to describe the body and to explain its ailments (Mishler, 1984). Yet, it is also possible in this context for the patient to draw on such "dominant" discourses when articulating their experiences. For instance, Shaw and Bailey offer a transcript of such a clinical encounter in which a patient describes their blocked nose as 'blocked nasal channels' (2009: 417). However, it is important to acknowledge that the patient's utilisation of this discourse in this instance might arguably serve to further perpetuate the medico-scientific ways of understanding health and illness that it embodies.

(iv) Discourses are constitutive

Introduced briefly earlier, the constitutive potential of discourse, that is, the potential for discourses to actually shape those aspects of reality with which they are concerned, is a key aspect of Foucault's thesis. To recycle an earlier quote, Foucault famously described discourses as having the potential to 'systematically form the objects of which they speak' (1972: 49). It is on this point that my view of discourse, while similar to Foucault's in this regard, differs slightly, and is perhaps best described as critical realist in orientation. Specifically, I follow the moderate constructionism advanced by Elder-Vass (2012) that allows for the reality of some things (both material and social) to exist independently of discourse. This version of constructionism posits a causal role for the material world and social structures that exist outside of discourse, while retaining the potential for discourse to shape human understanding and experience of the world, including notions of self and, crucially for the present study, health, illness and disease. The discursive psychologist and discourse analyst Jonathan Potter, while not explicitly identifying as a critical realist himself, does offer the following thoughts on the constitutive potential of discourse which, using the metaphor of construction, encapsulates rather well the position that I have attempted to describe here. Potter (1996: 98) writes,

> [h]ow strong is construction in this metaphor? The strongest version of the metaphor would have the world literally springing into existence as it is talked or written about. Ridiculous, surely! Perhaps, but I want to opt for something nearly as strong. Reality enters into human practices by way of the categories and descriptions that are part of those practices. The world is not ready categorized by

> God or nature in ways that we are all forced to accept. It is constituted in one way or another as people talk it, write it and argue it.

Similarly to Potter, then, I would not wish to deny the existence of a physical world, and acknowledge that there are many aspects of the physical world that would and do exist outside of discourse. However, crucially, it is human understanding and experience of those things that is constructed through discourse. I feel that this more moderate interpretation of the constitutive potential of discourse goes some way to addressing those criticisms, posed chiefly by realist scholars, which call into question the more extreme post-structuralist notion that no aspect of reality can exist outside of discourse (see: Hacking, 1999).

(v) Discourses are culturally and historically constituted

Discourses and their statuses (say, as dominant or minority) are not only constitutive of the world, but are also products of it (Blommaert, 2005). When we draw upon or invent certain discourses, and exclude others, to make sense of and communicate about aspects of the world, we do so in socially- and historically- informed ways. To draw once more on Harvey's example of the dominance of medico-scientific discourses surrounding the body and its ailments, although this perspective presently dominates this area of knowledge in Western societies, this has not always been the case and is not the case across all social and cultural contexts in the present (Pilgrim and Bentall, 1999).

To demonstrate the cultural situatedness of discourse, Cameron (2001: 15-16) observes the way in which the concept of drugs is the subject of a plethora of discourses (i.e. of criminality, recreation, medicine, and spiritual enlightenment), all of which paint a different,

culturally-dependent picture of what drugs are. To exemplify the historical situatedness of discourse, Gwyn (2002: 17-18) provides a fascinating discussion about the medical status of hot water. Gwyn observes how, although hot water is now considered to have healing, bacteria-killing qualities, during the seventeenth century this was quite the opposite, where the dominant discourse surrounding hot water actually construed it as injurious to humans, whom it could render more susceptible to contracting disease.

(vi) Discourses are actively drawn upon by individuals

Following one of the staple principles of Discursive Psychology (Edwards and Potter, 1992), I am sensitive to the possibility for individuals to actually draw upon and make use of discourses to understand and communicate about the world and to meet their particular interactional aims. This signals a rather significant departure from Foucault's original conception of discourse, for this emphasis on the possibility for individuals to actively draw upon and challenge discourses affords those individuals a greater degree of agency than that implied within more hard-line macro versions of social constructionism, which tend towards what has come to be known as the 'death of the subject' (Heartfield, 2002), wherein individuals are conceptualised 'only as the outcome of discursive and societal structures' and consequently have 'no capacity to bring about change' (Burr, 2015: 27). However, it is also important to state that, in view their insidious and invisible nature, I am aware of the possibility for individuals to draw upon discourses unintentionally, necessarily realising.

(vii) Discourses leave traces in texts

Although invisible, I interpret discourses to be identifiable through the communicative (including linguistic) traces that they leave in the texts in which they manifest. It is important at this point to plot the distinction, as I see it, between *discourse* and *text*. Following Sunderland (2004: 5), I take *text* to mean communicative output, be that linguistic, visual or otherwise. I interpret texts to contain evidence of discourses (Talbot, 1995: 24). The fact that discourses are produced and re-produced in texts contributes to the ever-increasing rate at which new discourses are born into being, and existing discourses perpetuated and challenged. It is thus possible for discourses to actually come into being as the result of the emergence of a particular communicative mode, text type or genre. In the case of the present study, for example, the term *diabulimia*¸ and much of the discourse that surrounds it, has been perpetuated (if not actually invented) in online, computer-mediated texts.

This view of texts containing evidence of discourses constitutes another important point of departure from Foucault's original conception of discourse, since Foucault did not allude to the textual or linguistic properties of discourse, but instead regarded discourses as the broader, macro-level rules that govern rather than explicitly inhabit texts, actions, behaviours and so forth (Arribas-Ayllon and Walkerdine, 2008). Interpreting discourses in this way allows them to be identified and examined more systematically by discourse analysts. Indeed, Mills (1997: 17) argues that we might 'detect' a discourse by 'the systematicity of the ideas, opinions, concepts, ways of thinking and behaving which are formed within a particular context.' Building on the work of Mills (1997), Sunderland (2004: 31-32) provides a list of the possible ways in which discourses manifest in texts, to allow analysts to search for traces of discourses in a more 'systematic' and 'conscious' manner (2004: 36). Much like Mills

(1997), Sunderland suggests that we might identify discourses through observing repeated lexical choices in the representation and evaluation of knowledge, individuals, ideas, beliefs and (linguistic) practices. Scholars, particularly those adopting critical approaches in their analyses (Fairclough, 1989), have identified discourses through the repetitive and systematic use of such linguistic features as hyperbole, euphemism, implicature, modality, agency (both grammatical and sociological), nominalisation and metaphor (Baker, 2010).

When identifying discourses, it is also useful, Sunderland suggests, to consider those aspects of the text(s) which draw on the features of *other* texts – in other words, to look for evidence of intertextuality. Broadly defined, intertextuality can be thought of as the influence of one (prior) text on another (Allen, 2011). Discourses can manifest in quite overtly intertextual ways, with one text drawing heavily and directly on another (Fairclough, 1992). However, it is also possible for discourses to manifest in texts in more subtly intertextual ways, that is, for texts to draw on smaller parts or snatchings of other texts. In terms of the present study, this requires an acknowledgement that the discourses I identify in online interactions about diabulimia do not exist in isolation, but rather are likely to exist within 'networks' including other, related texts (Foucault, 1972: 23).

As well as looking for evidence of discourses in texts, it is also potentially fruitful for analysts to consider the potential for discourses to be indicated by absences in the text(s) under examination (Sunderland, 2004: 32), for discourses are, after all, 'principally arranged around practices of exclusion' (Mills, 1997: 12). As a point of terminological clarification, absence in this sense does not refer simply to what is not present in a text, but, rather, to the omission of what one might *expect* to find in a particular text when taking in to account the

text's type and topic, as well as those discourses that are actually present (Mumby and Stohl, 1991).

Having outlined the view of discourse that I adopt for the purpose of the present study, the next part of this section will consider the implications that this social constructionist version of discourse has for the ways that people understand and communicate about health, illness and disease. Rather than provide an extensive review of research that takes a socially constructive view of health and illness (though such research is drawn upon extensively throughout the analysis), the forthcoming section will focus on the implications that this view of discourse might have for the construction of diabulimia in particular, both as an illness and a disease.

2.2.3. Discourse and the construction of health, illness and disease

Discourse plays an essential role in constructing and transforming our understandings of all health-related phenomena, including disease, illness and the body (Fox, 1993: 3). The concept of health itself comprises a countless range of socially embedded discourses which are invented or drawn upon by individuals in order to make sense of their own (and others') bodies, physical sensations and mental states (Lupton, 1992). When individuals experience ill-health, these experiences are not just biological, but are also discursive (Harvey, 2013: 4-5). As Fox (1993: 6, emphasis in original) argues,

> [i]llness cannot be *just* illness, for the simple reason that human culture is constituted in language, that there is *nothing knowable outside language*, and that

> health and illness, being things which fundamentally concern humans, and hence need to be 'explained', enter into language and are constituted in language, regardless of whether or not they have some independent reality in nature.

I would like to explore in more detail Fox's contention that illness does not having a 'reality in nature' (p. 6). Here, Fox is drawing on Eisenberg's (1977: 9) distinction between "illness" and "disease", according to which disease can be thought of as the strictly biological processes that are involved in the development of a disorder, whereas illness can be considered the social, *lived* experience of that disorder. This distinction is often used to account for the differences in the ways that lay people and practitioners think and talk about health. Helman (1984: 86), for instance, suggests that medical practitioners draw on medicalising discourses to make sense of ill-health because it is in such medico-scientific terms – that is, in 'disease' terms – that they have been trained to think and talk about the human body and what happens to it when things go wrong. On the other hand, those who have not received such training tend to think and talk about ill-health in terms of their (or others') lived experiences of it, in other words, in 'illness' terms. This argument is fleshed out further by Gwyn (2002: 35), who writes that,

> [d]isease represents the doctor's perspective because the biomedical version requires an understanding of pathology that is discrete and rational. Within this model, disease is delimited and categorical, an identifiable entity residing in the body of a host. Illness, by contrast, is "the subjective response of the patient, and of those around him, to his being unwell" (Helman 1984: 91).

To incorporate this distinction between illness and disease into our understanding of health as discursively constructed, I propose that both illness and disease are constructed through the discourses that individuals draw upon when they think and talk about various aspects of their health. Integrating the moderately socially constructive view of discourse outlined earlier in this section, while illness can therefore be thought of as entirely discursively constructed, diseases (i.e. the biological processes involved in diabetes) can have an existence outside of discourse, though it is through discourse that people understand and communicate about these processes.

This point seems particularly apt in the case of diabulimia, for, since this health phenomenon is not recognised as a legitimate disease within medical circles, it is conceivably through their discursively constructing their experiences of it that sufferers are afforded the best opportunity to challenge medical authority and construe their own experiences as disordered or as the symptoms of disease (Barker, 2008). The discursive challenging of medical authority as it relates to contested diseases will be explored in greater detail later in this chapter in the section introducing internet support fora.

So far I have presented the argument that individuals construct their health, illnesses and diseases through the discourses that they draw upon to think and communicate about their conditions. However, and as I discussed earlier, discourses are rarely brand new and invented at the point of use. Instead, it is much more likely that individuals reproduce and recycle discourses to make sense of and communicate about their health (Lupton, 2012: 2-3). Although it is difficult, if not impossible, to track the origin of most discourses, frequently cited sources of discourses which people use to communicate about illness and disease include (but are not limited to): the language of medical practitioners (Gwyn, 2002: 6); the

media (Karpf, 1988: 143); literary representations of health and illness (Murray, 1999); and the ways that others talk about health-related issues (James and Hockey, 2007: 88). From this perspective, in particular the last example, the discourses that people draw upon in their health-related interactions can be considered to have important consequences for the ways that others think and communicate about their own health, for the discourses that surround illness and disease exist cyclically; individuals continually draw on existing discourses to communicate about their health and, in turn, provide others with the same resources with which to do the same, rendering those discourses all the more pervasive in the process.

The foregoing section has outlined the particular social constructionist view of discourse that I adopt for the purpose of the present study. From this discussion it is apparent that even after one has isolated a particular model or version of discourse to meet their analytical needs, discourse remains a necessarily complex, multi-faceted and frankly messy concept. The social constructionist model of discourse that I adopt in this study, though not entirely Foucauldian in its conception, does lean heavily on Foucault's writing, but also borrows important ideas from (critical) discourse analysts, discursive psychologists and critical realists. The features of discourse outlined in this section that bear the greatest significance for the forthcoming analysis are that discourses are plural, hierarchical, moderately constitutive (i.e. of experiences and understandings of diabulimia), are actively drawn upon, and leave traces in texts. Following this, I focused specifically on the concept of health (including illness, disease and the body) as a discursively constructed phenomenon, considering, in particular, the implications that this view of discourse might have for the construction of diabulimia, both as a disease and as an illness, in present study. In the section that follows, I introduce health-related internet fora, the medium of communication from which the data analysed in the present study is sourced.

2.3. Internet fora and health-related disclosure

2.3.1. Introducing health-related internet fora

An internet forum, plural fora, is an online, computer-mediated platform of communication which offers its users the chance to interact with large numbers of (usually) unknown others, for the purposes of sharing ideas, telling stories and seeking and providing support about a range of topics (Claridge, 2007). Fora are typically dedicated to specific topics or themes, the nature of which can vary widely on a forum-to-forum basis, and can include, for example, sports, film, music, current events (Largier, 2002) and, most pertinent to the present study, health (Collot and Belmore, 1996). Like other forms of computer-mediated communication (CMC), the popularity of internet fora grew exponentially during the 1990s due to the increased availability of domestic computers at this time as compared to previous decades (Thomas and Wyatt, 1999). In fact, the number of active fora on the internet is so great that it is beyond estimation (Crystal, 2001). The content of internet fora is usually generated by users in one of two ways, by either creating a thread (a series of chronologically-ordered messages or posts relating to a specific topic that have been contributed by numerous users) or posting a message to an existing thread that has been created either by another user or a forum moderator (Antaki et al., 2005). The contents of forum messages are usually linguistic, though many fora are now capable of hosting multimodal content, meaning that it is becoming increasingly possible for users to insert graphical elements, such as emoticons, images and videos, into their contributions.

Internet fora constitute a significant and increasingly popular avenue for health-related disclosure and advice-seeking (Harvey and Koteyko, 2012), affording individuals the fairly

unique opportunity to interact with and read about the feelings and experiences of large numbers of similar others who are likely to be in a similar situation to themselves and from whom they can receive social support, advice and even validation with regard to their own health-related experiences (Coulson, Buchanan and Aubeeluck, 2007). Joinson refers to this phenomenon as 'the benefit of being in the same boat' (2003: 151), and particularises these benefits to those seeking health-related support in internet fora and other online communities thus,

> [m]isery loves company for a number of psychological reasons, the key being social comparison. Social comparison is a process of comparing ourselves with others. In general, we can compare ourselves with those doing better than ourselves (upward social comparison) or those doing worse (downward social comparison). Within a self-help context, the two forms of comparison serve two independent functions: downward social comparisons may improve a person's mood and self-esteem by showing that there are others worse off […], while upward comparisons may provide a guide for actions.

The benefit of having access to the disclosure of experiences of similar others might be particularly attractive to individuals experiencing health concerns that are routinely subjected to social stigma, such as eating and purging disorders (Stommel, 2010), where sufferers might be less inclined to seek face-to-face support from practitioners and even friends and relatives for fear of negative judgement or social sanction (White and Dorman, 2001). Internet fora also offer significant practical benefits, such as the opportunity to overcome the spatial, temporal and other accessibility barriers that might otherwise prevent users from

seeking advice and interacting with similar others (Salem, Bogat and Reid, 1997; Döring, 1997; Braithwaite et al., 1999).

A criticism often directed at health-related internet fora as a source of information and advice concerns the questionable credibility of the information they contain, particularly on peer-led platforms, the typical users of which are unlikely to have received any medical training (ten Have, 2002). Indeed, it is possible for contributors to this platform who actually have little to no knowledge or experience of a particular health-related issue to contribute information about it that is inaccurate, or to present their opinion about it as fact (Coulson and Knibb, 2007). It is difficult to ascertain how much of the information contained on these sites is factually misleading, though it is seems probable, given the vast numbers of members and contributions that they typically host, that most health-related fora will contain at least some factually misleading information. However, it is also worth noting that some fora operate with moderator-led measures and mechanisms which govern the information that is posted in an effort to prevent the circulation of offensive or unscrupulous material (Campbell, 2013). While in some cases this may involve users' contributions being amended or deleted altogether, in other cases users may correct or "pull up" other users, should their contributions be deemed factually misleading or otherwise unhelpful. Another potentially negative characteristic of many health-related internet fora relates to the contribution of scaremongering and negative information which might serve to frighten other users (Sandaunet, 2008). In a study undertaken by Broom and Tovey (2008), a group of cancer patients self-reported that they were actually more concerned and worried by negative medical statistics and scaremongering in internet fora than they were concerned about potentially misleading information circulated on this platform.

Moving away from issues relating to the quality and helpfulness of the informational content posted to health-related internet fora, another criticism often directed at this anonymous online environment relates to its providing fertile ground for potentially antisocial behaviour. As Harvey and Koteyko (2012: 167) observe,

> in addition to the […] positive outcomes, studies of computer-mediated communication also describe online hostilities of variable intensity, such as disagreements, criticism or aggressive emotional outbursts (known as 'flaming' or 'trolling') that can cause stress and anxiety both for the interactants involved and other community members.

Although the concept of *flaming* is rarely precisely defined in the research literature devoted to this topic, it can be understood as the hostile expression of emotions and feelings which might be perceived as being in some way abusive or harassing (Turnage, 2007). However, it is necessary to balance this point with the observation, made in recent research, that the actual occurrence of antisocial, flaming behaviours in online contexts might actually be rarer than reported in early studies. Comparing flaming behaviours in e-mail, videoconferencing and face-to-face interactions, Castellá et al. (2000) noted the general rarity of flaming behaviours. Similarly, in their study of internet fora dedicated to various health-related topics, van Uden-Kraan et al. (2008) considered only 1 per cent of all messages to constitute flaming behaviour. These studies support Spears and Lea's (1992) argument that there exists an *apriori* link between flaming and CMC, where flaming is often viewed as something that occurs consistently and uniquely in online communicative contexts. The internet for a examined in the present study are therefore likely to contain a mixture of positive, communal elements and negative, aggressive elements.

Notwithstanding these more negative characteristics, internet fora remain an ever-rapidly growing source of social support and health information, and maintain their status as a primary medium for health-related interaction and advice and information-seeking today (Burrows et al., 2000; Cotton and Gupta, 2004; Harvey and Koteyko, 2012). Internet fora provide a particularly significant platform for advice-seeking and disclosure for individuals experiencing diabulimia, who are denied access to more conventional sources of medical support with regard to their suffering.

Internet fora and other online platforms for social support have also been taken up by people wishing to disclose about health issues that might be considered to be in some way similar or related to diabulimia. There is, for instance, a growing body of research examining how individuals discursively construct and negotiate various aspects of their illness experience and identities online, not least where notions of disease self-management are concerned (Armstrong, Koteyko and Powell, 2011; Hunt, 2015; Hunt and Koteyko, 2015). In their study of a UK peer-to-peer online diabetic community, Armstrong, Koteyko and Powell (2011) observed the way in which this platform for social support served as medium through which forum members could negotiate and establish what constituted acceptable behaviours with regard to effective diabetes self-management. The authors of this study also reported the tendency for contributors giving advice to present themselves as reliable and authoritative sources of information. Similarly, a vast and ever-burgeoning body of research has examined online support groups as an avenue through which individuals construct their experiences and understandings of, and identities in relation to, eating disorders (Norris et al., 2006; Day and Keys, 2008; Stommel, 2010). In an example of such a study, Hunt (2013) compiled and examined a corpus of internet forum messages relating to anorexia nervosa (hereafter anorexia). Amongst other things, his analysis revealed the propensity for individuals

contributing to this platform to grammatically objectify themselves with respect to their illness, constructing themselves as the direct recipient of their eating disorder's actions. Hunt interpreted this particular trend in the messages he analysed to constitute an attempt, by the forum contributors, both to distance themselves from their anorexia and to cast themselves in a passive and thus non-volitional role with respect to the development of the disease in the first place (Hunt, 2013: 278).

Finally, online support groups have also been explored as a context in which individuals experiencing contested illnesses, much like diabulimia, can discursively construct their experiences as the symptoms of a medical condition (Miah and Rich, 2008). For instance, Barker's (2008) examination of the contributions to a support group for sufferers of the contested illness fibromyalgia syndrome revealed the tendency for the site users to discursively construct their illness using decidedly medical language, rendering their shared experiences more cohesive, while challenging the expertise of physicians who had denied their suffering disease status, thereby demonstrating, moreover, the utility of this platform for challenging medical dominance, as well as for re-defining the parameters of what actually counts as illness (Ziebland and Wyke, 2012: 235).

2.3.2. Self-disclosure and the online disinhibition effect

So far in this section I have introduced internet support fora as a popular platform for health-related advice-seeking and disclosure, considering, along the way, some of their key positive and negative features. In a bid to better understand why this medium of online interaction constitutes such a popular means for health-related communication and disclosure generally, I

now turn my attention to the concept of the 'online disinhibition effect', a theory developed by Suler (2004) to account for the less inhibited nature of individuals' communication and behaviours in online as compared to face-to-face contexts. Suler argued that when interacting in anonymous, computer-mediated contexts, people tend to 'loosen up, feel less restrained, and express themselves more openly' (2004: 321). According to Suler (2004), the disinhibiting effect of CMC is brought about by six characteristics of communication in this context, these are: anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination and the minimization of authority. Although Suler argues that these factors work simultaneously and co-operatively, he also acknowledges that the 'lion's share' of this effect is created by three of these factors (2004: 322). Therefore, and following Harvey and Koteyko (2012: 209), the remainder of this discussion shall focus on the (i) anonymous, (ii) invisible and (iii) asynchronous character of computer-mediated interaction. These factors might facilitate less inhibited personal disclosure in the internet fora examined in this study, and so conceivably offer a data source that is more reflective of these individuals' naturalistic discursive routines compared to data that is collected in other contexts, such as interviews or focus groups (Joinson, 1999).

(i) Anonymity

Dissociative anonymity is, according to Suler (2004), the main contributory factor underlying the disinhibited nature of online communication. In the context of CMC, anonymity involves either the complete concealment of one's identity or the presentation of one's identity to others in an altered way that either conceals intimate aspects of the self or completely betrays one's offline identity altogether. The anonymous nature of some online communication allows users to dissociate themselves from both their online behaviours and the real-life

behaviours that they describe and disclose online. Thus Harvey (2013: 22) uses the analogy of users' donning a 'protective cloak of anonymity' when communicating online which allows them to 'express the way they truly feel and think'. Researchers propose that the anonymity of online environments can facilitate feelings of equality, potentially making contributors feel more at-ease to express information of a personal and sensitive nature (Attard and Coulson, 2012).

The opportunity for anonymity is particularly attractive to individuals who wish to disclose potentially face-threatening and stigmatising health-related concerns. Grohol (1998) notes how individuals experiencing mental health issues are able to talk more open and freely about their experiences in anonymous online environments because they can do so without anticipating negative judgement and evaluation, as might be the case (or at least as might be perceived to be the case) in non-anonymous settings. The somewhat liberating nature of anonymous communication has been observed in relation to numerous conditions and health-related concerns, including, though most certainly not limited to, alcoholism (Joinson, 2003), anorexia and depression (Hunt, 2013) and sexual health (Valkenburg and Peter, 2011).

(ii) Invisibility

The concept of invisibility in CMC is not too dissimilar to that of anonymity. Despite the increasingly multimodal character of CMC, hastened further by the emergence and growing convenience of multimodal media (such as video call applications), significant swathes of online communication remain text-driven, with interlocutors typically unable to see one another (Goddard and Geesin, 2011; Harvey and Koteyko, 2012; Barton and Lee, 2013). Typed exchanges are only really ever accompanied by user profile pictures, or images or

videos incorporated into the body of the message itself, neither of which, incidentally, need actually depict the users themselves (in fact, I personally have yet to encounter the use of a personal photograph in a health-related forum profile picture, including the fora sampled for the data examined in the present study).

It has been argued by a great number of scholars researching CMC that the invisibility afforded by platforms such as internet fora lends bravery to interlocutors, allowing them to talk about potentially face-threatening issues in an open and candid way (Joinson, 2001; Suler, 2004; Goddard, 2011). Invisibility also grants forum users the means to contribute to, or simply to visit and read, discussions about topics that they would never openly discuss in visible communicative contexts (e.g. a face-to-face conversation with a medical practitioner) for fear of prejudice and negative evaluation. Furthermore, the double-blindness of online peer-to-peer support fora means that even if one is negatively evaluated by another user on the basis of a forum contribution, unless that negative evaluation is expressed in a typed message, the impression of accommodation and acceptance is created by default (Joinson, 2003).

Another effect of invisibility is that interlocutors can communicate unhindered by the fear that they will be negatively prejudged or stereotyped on the basis of their race, sex or any other aspect of their person that might be evident in their physical appearance. As Harvey argues, 'invisibility produces a reduced sense of public awareness and, with this, a propensity for increased self-disclosure […] users of email do not have to concern themselves with how they look or sound when they send a message' (2008: 38).

(iii) Asynchronicity

Introduced briefly earlier in this section, communication can be considered asynchronous if it does not require the simultaneous participation of all interlocutors. Asynchronicity contributes to the online disinhibition effect in as much as it does not require interlocutors to deal with others' reactions and responses immediately (Harvey and Koteyko, 2012). Suler (2004) contends that the comparatively 'light' temporal demands placed on interlocutors in asynchronous, compared to synchronous, communicative contexts means that greater amounts of time and thought may be committed to the creation of their contributions (i.e. forum messages), the result being that the interlocutor's 'train of thought may progress more surely and rapidly towards deeper expressions of disinhibition that sidestep social norms' (Harvey, 2008: 39; see also Wright and Bell, 2003; Malik and Coulson, 2008). Suler (2004) also proposes that the relaxation of these so-called "social norms" in asynchronous communicative contexts can be particularly appealing to people who wish to disclose about potentially embarrassing or face-threatening issues (particularly in relation to their health), since they are comforted by having the option to depart from or leave behind the communicative situation at any point of discomfort or embarrassment (Suler, 2004: 323).

In light of the foregoing discussion, I would suggest that the communicative context of internet fora provide individuals with diabulimia-related concerns a platform on which to make sensitive self-disclosures and share personal difficulties with a level of candour that would conceivably be unlikely to emerge in more inhibiting social and communicative contexts, such as face-to-face interactions (Barak, 2007). The anonymity, invisibility and asynchronicity that characterises much health-related communication in online fora therefore make it an attractive channel through which to research the discursive routines of, what is in

people experiencing diabulimia, a population that would otherwise unlikely be so candid or forthcoming in terms of sharing their personal, health-related experiences. Accordingly, messages posted to the anonymous, invisible, asynchronous, and thus relatively disinhibiting, environment of internet fora therefore afford useful means through which to examine how diabulimia is discursively constructed in the present study. In the next and final part of this chapter I will briefly consider some of the most prototypical linguistic characteristics of the messages posted to this platform. It is important for me to be aware of such characteristics, since the technological affordances and constraints that shape these characteristics might influence the ways that discourses are linguistically rendered in the forum messages under examination.

2.3.3. The linguistic profile of internet forum messages

This final part of this section will first outline the general linguistic characteristics of CMC before narrowing in focus to consider the more specific traits of the language featured in internet fora – the source of the data examined in this study – reflecting on how these might affect how (and how much) people are likely to disclose about their health in this context. This section will not provide an extensive review of the vast body of linguistic research into the linguistic character of CMC, which now spans well over two decades, for this has been adequately reviewed elsewhere (Herring, 1996; Thurlow, Lengel and Tomic, 2004; Barton and Lee, 2013). Moreover, and as is hopefully apparent by this point, the objective of this study is not to provide a descriptive account of the linguistic features of internet forum messages, though the analysis will contain some more descriptive elements, during the initial stages at least.

The language of CMC has been linguistically characterized in various ways. However, its most common characterisation is arguably as a uniquely hybrid register that evidences traits of both spoken and written communication (see for example: Herring, 1996; Carter, 2004; Crystal, 2011). This popular characterisation was born out of the tendency for the language of CMC to be examined by means of comparison against more traditional varieties, such as written, spoken and even telephonic communication (Barton and Lee, 2013: 4-5). The following set of descriptors, adapted from the work of Baron (2000: 251) and later Harvey and Koteyko (2012: 188-189), summarizes researcher observations of CMC in terms that are applicable to all forms of communication in this medium:

Social dynamics: Predominantly like writing

- Interlocutors are physically separated
- Physical separation fosters personal disclosure
- And helps level the conversational playing field

Format: (Mixed) writing and speech

- Like writing, CMC is durable
- Like speech, CMC is typically unedited

Grammar

Lexicon: predominantly like speech

- Heavy use of first and second person pronouns

Syntax: (mixed) writing and speech

- Like writing, CMC has relatively high levels of lexical density
- Like speech, commonly uses present tense
- Contractions

Style: Predominantly like speech

- Low level of formality
- Expression of emotion not always self-monitored

Although the language of CMC contains many features typically associated with spoken and written communication, this variety also has some features of its own, including: acronyms and initialisms (e.g LOL for 'laugh out loud'); emoticons, such as smiling faces, or 'smileys' (e.g. :-)); letter/number homophones (e.g. r for 'are'; 2 for 'two'); stylized spelling (e.g. soooooooooo happy!); unconventional/stylized punctuation (e.g. '!?!?!?!?!?!?!?!?!?'); and word reductions, often involving vowel omission (e.g. nt for 'not') (Barton and Lee, 2013: 5). Many of these non-standard features were originally conceived of as erroneous, but have since been recognised as deliberate choices made by message creators in an effort to communicate more rapidly, reduce the amount of typing needed, render messages more speech-like, and to be more creative in expression (Herring, 2001: 617).

The characterization of CMC presented above should be read more as an approximation rather than a hard-and-fast attempt at establishing any kind of grammar for communication through this medium, for, as Herring (1996: 3) argues, '[…] CMC is not homogeneous, but like any communicative modality, manifests itself in different styles and genres'. Accordingly, the focus of this discussion narrows at this point to consider the linguistic character of internet forum messages more specifically.

Earlier in this section I considered the way in which many forms of CMC exhibit linguistic characteristics born out of the desire to construct messages economically, typing them out in as few characters as possible. As a result, features such as acronyms, abbreviations, omission

of words and so forth, are abundant in synchronous, time-pressured, written/typed mediums of communication, such as synchronous chat-rooms (Wallace, 1999: 11). However, messages constructed on asynchronous internet fora differ quite drastically in this regard. The concept of synchronicity refers to whether or not interaction is bound by the constraints of 'real time'; in other words, whether or not all the interactants are required to be involved in the communicative act at the same time. This means that unlike in synchronous communication, on asynchronous platforms a considerable amount of time might pass between the sending of a message, or the asking of a question, and the receipt of some answer or response from another interactant (e.g. an email or text message). The internet fora that I examine in this study can be considered asynchronous, since all of the interlocutors do not have to be present (or logged in) at the same time in order to communicate. Indeed, messages can be posted to a forum and not read or responded to by the intended recipient, or anyone else, for a matter of days, weeks, months and sometimes even years. Because users are not placed under these same temporal constraints, the economizing features redolent of the synchronous forms of communication discussed above are not so prevalent in asynchronous mediums, such as fora. Instead, the users of such platforms tend to contribute messages that are considerably longer than those posted to synchronous platforms, such as chatrooms (Collot and Belmore, 1996; Wallace, 1999; Crystal, 2001). Moreover, contributors to asynchronous internet fora are also more likely to type out words in their fullest, with at least near-complete syntax (Mann and Stewart, 2000: 181-182), safe in the knowledge that the extra time taken to do so will not result in their missing a turn, or result in their being evaluated negatively by others for a lack of promptness in reply (in fact, given the free-for-all nature of online forum interaction, users asking questions will usually be grateful to receive any response at all, regardless of its promptness!).

On entering an asynchronous forum, users have the option to read through the latest messages posted to the website and catch up on ongoing discussions, or revive older discussions that may have moved further down the list. Because of this, internet forum interaction tends to lack the turn-taking and adjacency pairing properties which Crystal (2001: 149) describes as 'fundamental' to spoken face-to-face conversation. Instead, internet forum interactions present something of a structural free-for-all, with users not obliged to read every comment, to answer any question, or even to read the most recent topics of discussion (Davis and Brewer, 1997: 28). As such, the diabulimia-related message threads featured in the present study are likely to span an appreciable amount of time and are unlikely to be complete at the point of examination, with users able to go back and add messages to a thread after the time at which they are sampled for analysis.

This final section of this chapter has introduced internet fora as a platform for health-related disclosure and advice seeking, pointing up its suitability as data for examining the discursive construction of diabulimia. Rather than provide a review of research into online health communication, this section has instead focused on those features of forum communication which make it particularly well suited to meeting the present study's aims, chiefly the disinhibited and temporally unrestricted character of the diabulimia-related disclosure that it contains.

3. Methodology

3.1. Introduction

This chapter introduces the analytical methods adopted in the present study, along with the data on which the analysis is based. The first half of this chapter outlines the mixed methods, corpus-based approach to discourse analysis adopted to examine the discursive construction of diabulimia, describing in detail the specific corpus procedures that will be used to identify and subsequently examine the discourses emergent from the data, before reflecting on the strengths, limitations and challenges of this specific approach. The second half of the chapter then provides a detailed account of the design and construction of the data analysed, the Diabulimia Fora Corpus, which includes consideration of the ethical issues surrounding online data collection.

3.2. Corpus-based discourse analysis

This study examines the discursive construction of diabulimia in internet forum messages using a mixed methods, corpus-based approach to discourse analysis. In practical terms, this involves the use of inductive quantitative corpus techniques to identify patterns and themes in the data which, by virtue of their statistical saliency, are deemed worthy of closer inspection. These patterns and themes and the discourses emergent from them are then interrogated further and in finer, more qualitative detail using a model of discourse analysis that is informed by the socially constructive view of discourse introduced in the previous chapter.

Traditional approaches to discourse analysis involved the close, qualitative examination of (typically) small amounts of language data, such as newspaper articles and conversation transcripts (Johnstone, 2008). However, recent years have witnessed the increasing use of such traditional discourse analytic methods in conjunction with more quantitative, particularly corpus linguistic, techniques in order to analyse datasets that are larger and more representative of the text type under investigation (Hardt-Mautner, 1995; Baker, 2006; Mahlberg, 2014). Corpus linguistics and discourse analysis share a number of concerns and theoretical assumptions which make them mutually compatible in this endeavour. Both corpus linguists and discourse analysts share a commitment to analysing authentic, naturally-occurring discourse, such as that found in newspaper articles, recorded speech, or, in the case of the present study, computer-mediated interactions (Mahlberg, 2014: 217), meaning these approaches can be distinguished from those which analyse data that is either researcher-invented or collected in experimental or laboratory conditions. A number of other researchers have been keen to highlight this shared concern of corpus linguistics and discourse analysis. McEnery, Xiao and Tono (2006: 111), for instance, observe that 'both corpus linguistics and discourse analysis rely heavily on real language', while Mautner (2009a: 122) draws our attention to an argument put forward by de Beaugrande (1997: 24), that '[l]arge [corpora] offer valuable support for the project of discourse analysis to return to *authentic* data' (emphasis added).

Another similarity shared by corpus linguistics and discourse analysis concerns their mutual focus on analysing language above the level of the individual word. Proponents of both approaches typically take as their data larger chunks of text, if not whole texts in their entirety, in the belief that it is within and across entire texts (rather than in smaller chunks of texts) that meaning is created (Mahlberg, 2014: 216).

Corpus linguists and discourse analysts also share the view of language as a social phenomenon, that is, both approaches (particularly the post-structuralist model of discourse analysis adopted here) take language to be at once constitutive of and constituted by the real world. For example, Stubbs (1996: 158) states that the textual patterns identified in corpus analyses 'embody particular social values and views of the world', while Mahlberg (2014: 216) reminds us that both discourse analysis and corpus linguistics share a view of texts as 'part of social interaction so that discourse is the place where meanings are created and interpreted' (see also: Teubert and Čermáková, 2007).

Corpus linguistic and discourse analytic methods have been usefully combined in the past to explore a range of topics and text types, such as gender and sexuality (Baker, 2014), health (Brookes and Harvey, 2016), the media (Bednarek, 2006), politics (Partington, 2003), literature (Mahlberg, 2013) and organisational communication (McCarthy and Handford, 2004). Yet, despite the similarities shared by corpus linguistics and discourse analysis, and the increasing popularity of the synthesis of these approaches, compared to the strides that corpus linguistic methodology has made in other areas of linguistic inquiry, such as lexicology (Halliday et al., 2004), grammar (Conrad and Biber, 2009) and register studies (Biber and Conrad, 2009), discourse analysts have yet to embrace so extensively the possibilities afforded by corpus methods. This observation is made by Baker (2006: 6) when he describes corpus-based discourse analysis as a 'cross-disciplinary field which is somewhat undersubscribed', while Mautner (2009b: 33) likens the relationship between corpus linguistics and (critical) discourse analysis to an 'occasional dating', rather than a 'formal exchange of vows' (see also: Hardt-Mautner, 1995). In the remainder of this section I outline what I perceive to be the major benefits of combining quantitative corpus techniques with more qualitative approaches to discourse analysis. In doing so I will argue not only that

corpus linguistics and discourse analysis are approaches that are well-matched for the examination of discourse, but that the analysis undertaken in the present study is actually enriched significantly by this methodological synthesis.

First, one of the main attractions of corpus methods is that the computer programs they use allow analysts to interrogate volumes of language data so large that they would typically (or at least realistically) lay beyond the possibilities of solely qualitative, manual methods of discourse analysis (Mautner, 2009a: 123). By basing my analysis on large collections of forum data, as opposed to, say, a single or handful of messages, my analysis is able to account for the ways in which a larger number of individuals construct diabulimia, as well as adopt different and multiple perspectives on the forum data. As Sinclair (1991: 100) argues, the opportunity to inspect vast amounts of language data in an instance allows the analyst to cast their eye over the data in a different way; often in contrast to the quite linear way that humans read texts manually. A related strength of corpus methods is that they can also prove useful for producing an analysis that is sensitive to what Baker (2006: 13) describes as the 'incremental effect of discourse', that is to say, the propensity for discourses and particular discursive constructions to be subtly established through linguistic patterns that might feature sparingly in one or two texts, but become significant when considered as part of a broader discourse type or collection of texts.

A further advantage afforded by the use of corpus analysis software suites is that these computer programs are generally regarded as superior to human intuition when it comes to identifying frequent or salient trends in the data, trends that are often so subtle that they are almost undetectable by the human eye alone (Mahlberg, 2009: 47). For, as McEnery, Xiao and Tono (2006: 147) suggest, our intuitions about language are often,

> incorrect, or at least inexact, because each of us has only a partial knowledge of the language, we have prejudices and preferences, our memory is weak, our imagination is powerful […] and we tend to notice unusual words or structures but often overlook ordinary ones.

It is important to stress that this argument does not mean to devalue or undermine analyses that are either led or supported by researcher intuition. In fact, no small degree of human intuition is necessary when making inferences about the significance of particular linguistic patterns identified through corpus means, as Hunston (2002: 22) argues, '[a]lthough an over-reliance on intuition can be criticised, it would be incorrect to argue that intuition is not important. Indeed, it is an essential tool for extrapolating important generalisations from a mass of specific information in a corpus'.

For the purpose of the present study, then, I believe it is most productive to regard corpus- and intuition- based insights not as mutually exclusive or necessarily conflicting, but as capable of co-existing in a reciprocal kind of relationship, whereby intuition can aid both in terms of generating ideas and lines of inquiry for a corpus analysis, as well as interpreting the corpus output (Biber, Conrad and Reppen, 1998). This potential for corpus methods and intuition to work reciprocally in this way is considered by Baker (2011: 20), who writes,

> [i]ntuition in itself can only take us so far. If we have a 'hunch' about something in a corpus, and follow it up, we may find evidence to support our hunch … or not. If all we want to do is test a hypothesis that we hold, then that is fine. However, there may be other aspects of language in the corpus which are more frequent or salient, and our hunch may not actually be the most interesting feature

> to have been examined. This is where combining an intuitive approach with a 'naïve' approach, allowing them to inform each other, can be more helpful.

A central assumption underlying corpus linguistic approaches, therefore, is that frequency-based analyses of language patterns occurring both in smaller and larger corpora have the potential to reveal aspects of the data that might be less open to intuitive inspection alone (Sinclair, 1991; Stubbs 1996, 2001). While our intuitions can be useful for formulating hypotheses and lines of inquiry for corpus analysis, they also have the potential to be wrong and to lack sensitivity to other, possibly more (at least statistically) salient features of the data.

One of the principal motivations for discourse analysts employing the use of corpora in their analyses is that corpus linguistic methods can help to alleviate some of the perceived bias traditionally associated with solely manual, particularly critical, approaches to discourse analysis (Widdowson, 1995). Corpus approaches are helpful in this regard because they advocate a systematic and rigorous approach to data that is based on the use and explicit description of replicable procedures for data collection, organisation and analysis (Baker and McEnery, 2015). Accordingly, corpus methods can be said to help restrict, or at least delay, the effects that the researchers' cognitive and social biases might have on the analysis (Hunston, 2002). Of course, human bias can never be removed from this research process entirely, since the human researcher is required to make decisions at almost every stage of any corpus linguistic analysis, including selecting or constructing corpus data, selecting which analytical tools to use, and interpreting the significance of the corpus output, which is usually done through the scope of a particular theoretical framework (Baker, 2006: 12).

The issue of objectivity is therefore not a straightforward one as it pertains to approaches sitting at the interface of corpus linguistics and discourse analysis, particularly where this involves post-structuralist analyses. Strictly speaking, the Foucault-inspired, socially constructive view of discourse that I adopt in the present study does not necessitate, or even acknowledge the possibility of, a truly objective research process. Instead, like a number of other critical paradigms, post-structuralism embraces and celebrates subjectivity and regards any pursuit of "true" objectivity as not only undesirable, but actually false. Analysing discourse is, from this view, a necessarily interpretive, subjective task, the results of which are likely to vary on an individual basis. As Jones (2012: 33-34) argues,

> being able to detect 'Discourses' through the computer analysis of corpora requires the creative combination of multiple analytical procedures, and it also necessarily involves a large amount of interpretive work by the analyst. Corpus-assisted discourse analysis is not a science, it is an art, and perhaps the biggest danger of employing it is that the analyst comes to see it as somehow more 'scientific' than the close analysis of texts just because computers and quantification are involved. The computer analysis of corpora does not provide discourse analysts with answers. Rather, it provides them with additional information to make their educated guesses even more educated and their theory building more evidence based.

Constructing corpora in a principled and transparent manner (in accordance with the conventions of the field) goes some way to ensuring that the data has not been selected in such a way that it will simply support the analyst's biases or preoccupations (Hunston, 2002: 123; Adolphs, 2006: 7-8; Baker, 2006: 12). Corpora constructed in this manner do at least

provide a fairly unbiased starting position, delaying human inference until the point at which I, the analyst, am required to account for the discourses that arise out of the data (Charteris-Black and Seale, 2010: 31). At this point, statistical corpus measures offer the additional benefit of guarding against the over- or under- reporting of the frequency or salience of a particular feature of the data (O'Halloran and Coffin, 2004; Baker et al., 2008: 297; Baker and McEnery, 2015).

The benefits of corpus tools considered thus far are best suited to identifying so-called "dominant" discourses (van Dijk, 2008). However, corpus methods can also be useful for revealing "minority" discourses that are likely to be less pervasive and which might run contrary to or challenge directly more "dominant" discourses, ideas or beliefs (Baker, 2010: 125). Restricting analyses to a single or small number of texts arguably creates the possibility for a "minority" discourse to be over-represented in the data, and consequently interpreted as a "dominant" discourse in the texts or text type under investigation (O'Halloran and Coffin, 2004). However, the examination of representative corpora, as opposed to a single or handful of texts, can produce analyses that are more sensitive to the relative statuses of discourses and how they interact with one another within and across texts (Baker and McEnery, 2015). The use of corpus methods in the present study will therefore increase my sensitivity to the relative statuses of the discourses upon which the forum contributors draw when constructing diabulimia in their messages.

Although scholars writing from a post-structuralist tradition have typically sought to shift emphasis *away* from quantitative scientific methods, more recent times have witnessed a growing recognition, amongst such scholars, that the use of corpus methods may be warranted in research that is influenced by post-structuralist thinking (Baker, 2006: 15-16).

One of the central aims of the post-structuralist agenda is to deconstruct the binary thinking which has formed the basis of western scientific methods for hundreds of years. Following Derrida's recommendation that we reject binary thinking (either/or) in favour of a logic which favours fuzzy boundaries (Derrida, 1978), Baker (2006: 15-16) argues that corpus approaches to discourse analysis can help analysts to break down the opposition between quantitative and qualitative methods. As an eclectic methodology designed to resolve the quantitative-qualitative binary by fusing quantitative corpus techniques with a qualitative, theory-informed approach to discourse analysis, the corpus-based approach to discourse analysis outlined here can therefore be seen as sensitive to the post-structuralist ideas that have profoundly influenced my view of discourse in this study. Indeed, the triangulation of multiple analytical methods, as in the present study, is fairly common practice in the social sciences more broadly (McNeil, 1990: 22), and increasingly so within corpus research. Baker (2006: 16-17) discusses several advantages of triangulating qualitative discourse analysis with qualitative corpus methods. Following Baker's discussion, in relation to the present study, this methodological triangulation will, broadly speaking, allow me to check the validity of my hypotheses, anchor my subjective interpretations in more objective corpus evidence and respond more flexibly to any unforeseen problems or emergent avenues for analysis.

Although the foregoing discussion might have unintentionally created the impression that only qualitative approaches stand to benefit from triangulation with quantitative, in this case corpus, methods, the reality is that both corpus techniques and discourse analysis stand to gain from their joint appropriation in the present study. Indeed, though very useful, corpus linguistic techniques of analysis do not constitute ends in themselves. One of the most significant advantages that corpus methods stand to gain from their cross-pollination with

qualitative approaches to discourse analysis concerns the contextual, social and theoretical knowledge that the human analyst brings to bear when interpreting corpus output. An appreciation of the social conditions in which texts are produced and interpreted is important for developing an understanding not only of what discourses are produced in texts, but also of how those discourses function in their original textual and contextual environments (Fairclough, 1989: 25). Such questions cannot be answered by traditional corpus techniques alone (Hunston, 2002). It is for this reason that Mautner (2009b: 33) argues that although it views language as a social phenomenon, it is through its specific application to a theory-informed method of discourse analysis that corpus linguistics' social concern is foregrounded particularly well.

This section has introduced the corpus-based approach to discourse analysis adopted in the present study, flagging up, along with way, its major benefits, thereby underscoring its suitability for examining the online discursive construction of diabulimia in the present study. To sum up, the integration of computational, corpus methods with more qualitative discourse analytical techniques will add a 'quantitative dimension' (Mahlberg, 2014: 216) to my analysis, allowing for the examination of a volume of forum messages that is appreciably larger than that which is possible through solely manual approaches. Moreover, the power of the corpus software to accurately and rapidly perform complex frequency-based calculations will allow me to support my more subjective interpretations of the data with more robust statistical evidence. Corpus-based discourse analysis can therefore be regarded as a mutually beneficial exchange of approaches which, by virtue of its crossing disciplinary boundaries, can overcome many of the limitations that either approach might encounter when used in isolation. As Baker and McEnery (2014: 479) put it, 'by the use of corpus analyses to approach the data, qualitative investigation[s] […] may be focussed and contextualized in

such a way that both qualitative and quantitative analyses become mutually reinforcing and enriching' (see also: Biber, Conrad and Reppen, 1998: 5; Baker et al., 2008: 296; Mautner, 2009a: 124-125). In the next section I will outline the specific corpus procedures that are used throughout the course of the forthcoming analytical chapters.

3.3. Corpus techniques for the analysis of discourse

A corpus by itself is not particularly useful for linguistic research, since it merely constitutes a large collection of authentic, but un-analysed linguistic data. In order to say something meaningful about the language in a corpus, it is necessary to use a set of tools – afforded by computer software packages – which present its linguistic content in some way that it can be meaningfully interpreted by the human analyst (Hunston, 2002: 3). In the present study I use the software programme *WordSmith Tools* version 6.0 (Scott, 2012), selected because it offers a wide range of tools and statistical calculations for interpreting corpus data, including those of which I intend to make use here. Although there is no 'standard' set of corpus techniques (Baker et al., 2008: 274), the analysis in the present study makes use of four staple corpus tools: frequency, keywords, collocation and concordance. The ensuing section will introduce each of these tools, in turn considering how they will be used to identify and examine the discourses through which diabulimia is constructed across the forum messages.

3.3.1. Frequency

Frequency information reveals the number of times each individual word or string of words occurs in the corpus data (Hunston, 2002: 67). A word frequency list will typically display an itemised list containing each individual word (or "type") featured in the corpus, along with the number of times it occurs throughout the data (or "token"). The frequency lists featured in this study are presented in this way – displayed in descending order in terms of frequency, with the most frequently-occurring words appearing at the top. Although the corpus software produces frequency information as a raw number of tokens, for ease of interpretation, this information will also be expressed as a percentage of the total number of words in the corpus.

Examination of the most frequently occurring words in a corpus can reveal the most frequent themes or lexical features around which a text or collection of texts is centred, features that can signal the presence of discourses (Baker, 2010: 127). This is exemplified by Stubbs's (1996) analysis of two small corpora, each containing a speech made by the founder of the Scouts movement, Robert Baden-Powell. One of the speeches was made to girls, while the other was made to boys. Through frequency counts, Stubbs noted the prominence of the word 'happy' and its related form 'happiness' in both corpora, suggesting happiness to be an important concept in both speeches. However, closer inspection revealed that these words were used in quite different ways in each of the speeches. Stubbs observed that while Baden-Powell encouraged the boys to be happy and lead happy lives, he instructed the girls to make others happy. Therefore, word frequency information flagged up the saliency of the concept of happiness in Baden-Powell's speeches, signalled by the lexical items 'happy' and 'happiness'. This then directed Stubbs's subsequent, more granular analysis of these words in their wider textual surroundings, through which he was able to identify a hegemonic

discourse of sex inequality which positioned females as facilitators of male happiness. Although high-frequency items tend to attract most of the analyst's attention, when analysing discourses it can also be potentially fruitful to consider low frequency items that are usually relegated to the bottom of the wordlist, for, as Harvey (2013: 57) points out, 'frequency, although a *prima facie* indicator of markedness, does not always serve as a marker of dominant discourses or preferences of opinion: considering relatively low frequencies, too, can reveal preferences and default values or other attitudes worthy of investigation.'

In the present study, word frequency information is utilised as a starting point for corpus analysis. Though it offers some illuminating insights about the data in its own right, the frequency procedure will be used to ascertain the frequency of the words in the corpus under analysis with a view undertaking more complex procedures, such as keywords and collocation, that will arguably prove to be more illuminating of the discourses that surround diabulimia in the forum messages (Baker, 2006: 47).

3.3.2. Keywords

The second stage of my analysis will involve generating keywords from the corpus data. Keywords are those words that occur with either a statistically significantly higher frequency (positive keywords) or significantly lower frequency (negative keywords) in the corpus under analysis compared to a reference (or comparator) corpus (Adolphs, 2006: 44), with the latter serving as a kind of standard or 'benchmark' for normal language use. A keyword list therefore reveals those words that do not just occur frequently in the corpus, but which are

salient by dint of their occurring more often than might be expected compared to a researcher-determined benchmark (McCarthy and Handford, 2004: 174).

In the present study, keywords are derived from mechanical criteria (Baker, 2010: 134), judged as key in view of their statistically significant frequency (or infrequency) in the corpus of forum messages I am examining as compared to a reference corpus of general language (the British National Corpus, henceforth BNC; discussed later). However, the concept of keywords actually precedes this relatively modern conception most familiar to corpus linguists. Firth (1957: 10), for example, discussed *focal* or *pivotal* words, while Williams (1983) later coined the term *keywords* to describe those words intuitively deemed to express meanings of some significance to a particular society or culture. In contrast to the computational measure employed in the present study, these approaches to determining keyness place emphasis on the researcher's intuitive knowledge of both the language under inspection, as well as of culture and society more broadly. More modern, computational methods of keyword generation are arguably more sophisticated than the aforementioned manual approaches pioneered by Firth and Williams (Baker, 2010: 134), since they reduce the *a priori* bias of the researcher in the identification of particular words and themes in the data as key (Baker, 2011: 19). Although my analysis proceeds on to more subjective interpretation of the keywords generated, the initial use of this computational measure does at least delay researcher inference until this point. It is worth emphasising once more that I do not wish to polarise computational and non-computational means of determining keyness here, since keywords generated by mechanical means often overlap with those words that we might intuitively regard as culturally significant without the aid of computational assistance (Scott and Tribble, 2006).

The generation of keywords in the present study serves as an entry point into the data, used to rapidly identify themes and objects of discursive construction for subsequent, more detailed analysis (Baker, 2006: 125). By focusing on those objects of discourse identified through computational keyword generation, my analysis will focus on the most characteristic, rather than just frequent, parts of the data. The procedural decisions regarding the generation of keywords in the present study, including the selection of the reference corpus, are outlined in Chapter Four.

The present study follows a good deal of corpus-based discourse analytic research in which keyword examination is used as an inductive tool in the identification of discourses, particularly in corpora representing health-related communication (Adolphs et al., 2004). For instance, in a series of studies, Seale and colleagues analysed keywords produced from corpora containing health-related internet forum interactions in order to elucidate the discourses on which people draw to make sense of and construct their illness-related experiences and identities (Seale, Ziebland and Charteris-Black, 2006; Charteris-Black and Seale, 2010). Charteris-Black and Seale (2010) analysed the keywords from corpora containing data taken from electronic fora for sufferers of breast cancer and prostate cancer, focusing on how gender influenced the language of illness disclosure in these contexts. Using a corpus over 2 million words in size, the authors compared the keywords derived from these two types of cancer fora (represented by distinct sub-corpora). Their keyword analysis revealed a prominence of pronouns (*I, she, her, me*) and words relating to social actors (*mum, women*) in the breast cancer fora compared to the prostate cancer data, in which no personal pronouns featured as keywords. The keyword list in this latter corpus was instead dominated by words denoting medical and technical phenomena and personnel (e.g. *urologist, PSA, prostatectomy*). Based upon this keyword evidence, these authors argued that the women who

contributed to the breast cancer fora were more likely to discuss their feelings and interpersonal relationships, while the men who contributed to the prostate cancer fora were more likely to frame their understandings of their condition in medical, technical and research-related terms.

Harvey and colleagues have also utilised keyword analysis in a series of studies examining the linguistic character of adolescent health communication (Harvey et al., 2007; Harvey et al., 2008; Harvey, 2012, 2013). This research is based upon a corpus of advice-seeking messages posted to Teenage Health Freak, a UK practitioner-led health advice website directed at adolescents and young adults. Keywords generated by comparing this corpus against the spoken element of the BNC revealed the messages contained in the corpus to cluster around a number of discursive themes that included sexual health (*sex, sexual, penis, abortion, pregnant*), mental health (*depression, depressed, suicide, suicidal, die*), body weight (*anorexia, anorexic, weight, size, heavy*) and drugs and alcohol (*drugs, cannabis, cocaine, heroin, pills, alcohol*) (Harvey, 2013: 93-94). Not only did Harvey's keyword analysis serve as an analytical entry point in his own study, but it also served as the basis for a number of other, more specialised studies of this data. For example, Harvey (2012) undertook a study of how the keywords *depression* and *depressed* were used by the adolescents in their messages. Harvey and Brown (2012) reported on a corpus-based analysis of the ways in which adolescents linguistically formulated concerns relating to self-harm. And, more recently, Harvey, Locher and Mullany (2013) examined the discourses surrounding sexual health in this dataset.

3.3.3. Thematic keyword categorisation

The next analytical step involves categorising the keywords into themes (including concepts, objects, people, etc.), reflecting the objects of discursive construction across the forum messages contained in the corpus. This step in the analysis resembles somewhat the qualitative procedure of thematic grouping/coding operationalised in corpus studies such as Charteris-Black and Seale (2010), Mahlberg and McIntyre (2011), Harvey (2013) and Hunt (2013). The procedure adopted in the present study involves manually reading the keywords, both in isolation and within their broader textual surroundings (see the forthcoming section on concordance) in order to resolve the list of keywords into a manageable number of themes of discursive construction to be explored in greater detail through the course of the analysis. In order to capture the fullest possible range of themes to which each keyword corresponds, a large number of concordance lines surrounding each keyword will be examined. For low-frequency keywords, it is possible to examine every concordance line and so every instance of its use across the corpus. However, for high frequency keywords, I adopt Sinclair's (2003) procedure, well-established in corpus linguistic research, of examining the patterns evident in 30 randomly-selected concordance lines, assigning the particular keyword to one or more emergent themes, and then repeating the process until new patterns cease to emerge.

Before grouping the keywords, it is necessary to establish a cut-off point, for it would be impractical to closely examine and categorise each and every keyword generated by the corpus software and, after all, one of the main advantages of the keyword function is that it allows the researcher to hone their analytical attention in on those relatively few (in the context of the entire corpus) words that best characterise the language in the data. Restricting the focus of the keyword analysis requires that several important considerations be made.

Most pressingly, one must decide upon exactly how many keywords to include in the analysis. The existing literature is not particularly helpful in this regard, with the number of keywords selected for manual categorisation varying from study to study and generally depending on the nature of the research being undertaken and the data at-hand. Seale, Ziebland and Charteris-Black (2006) examined the top 300 keywords in their corpus, while Hunt (2013) focussed on the top 200 keywords in his corpora of anorexia and depression emails. Mahlberg and McIntyre (2011) isolated the top 150 keywords in their corpus stylistic analysis of Ian Fleming's *Casino Royale*, a number which these authors described as 'arbitrary' (2011: 209). Although the cut-off point will, of course, determine the number and shape of the keywords resolved into each theme in the present study, the effect that this will have on the analysis itself is less significant, for, as Mahlberg and McIntyre (2011: 209) point out, isolating a particular number of keywords only proves problematic – in terms of eschewing the data – when there is an attempt to *quantify* the number of themes emergent from the corpus. The issue of a cut-off point therefore does not raise any serious issues in the present study, since I am not interested in quantifying the number of themes emergent from my corpus, but rather am grouping keywords in order to guide my subsequent, more qualitative analysis. In the present study I isolate the top 200 keywords for thematic grouping, an arbitrarily selected cut-off point which provides a sufficient amount of keywords for analysis and even suggests a series of other interesting themes that could be pursued in future research.

The manual identification of themes described in this section is an interpretive and subjective process that will likely reveal as much about me as the analyst as it does about my corpus (Baker, 2010: 107-108). The appeal of the method of manual keyword grouping is that it retains the replicability and statistical validation of data-led computational keyword

identification, but augments this with the interpretative sensitivity of the human mind, answering to broader appeals for triangulating the interpretation of statistically-validated corpus evidence with the sensitivity and flexibility of human intuition (McEnery and Wilson, 2001: 11). For instance, Baker (2004b) qualitatively examined and thematically grouped the keywords from corpora of gay and lesbian erotica in order to examine the discourses of masculinity and femininity signalled within these texts. In another example, Mahlberg and McIntyre (2011) manually thematically grouped the keywords generated by comparing *Casino Royale* with the fictional prose section of the BNC. When studying British print media representations of Islam, Baker, Gabrielatos and McEnery (2013) grouped the noun collocates of the word Muslim into thematic categories which included area/country, conflict, family/relationship, religion, and so on.

The present study also follows in the footsteps of corpus-based studies of health-related communication that have productively grouped computational keywords into semantic and thematic categories for closer, qualitative analysis. In the series of studies conducted by Harvey and colleagues introduced earlier, the researchers resolved the keywords from their corpus of adolescent health emails into semantic groups which included themes such as sexual health, mental health, body weight, drugs/alcohol (Harvey, 2012, 2013; Harvey and Brown, 2012; Harvey, Mullany and Locher, 2013). Other major proponents of keyword grouping in corpus-based health communication research include Charteris-Black and Seale (2010), who make extensive use of this technique in order to determine the key themes of communication across their corpora of online forum interactions in order to study the differences in the ways that men and women communicate about cancer (see also: Seale, Ziebland and Charteris-Black, 2006).

While the analysis of keywords provides a useful entry point into the corpus data (and can itself reveal interesting insights), corpus linguistic studies rarely restrict their scope to the analysis of keywords alone, since this procedure is inclined to reveal very little about the broader kinds of constructions in which those words occur. Therefore, in order to examine the discourses surrounding the themes determined through keyword categorisation in my corpus, my analysis then proceeds on to closer, more contextualised analysis, through the more qualitative corpus procedures of collocation and concordance (Adolphs et al., 2004: 25; Baker, 2006: 47; Harvey, 2013: 57).

3.3.4. Collocation

The concept of collocation in corpus linguistic research refers to the 'statically significant co-occurrence of two words' (Baker, 2010: 107-108). Two words are judged to be collocates if they occur next to or near each other frequently, or at least more often than might be expected by chance (Hunston, 2002: 68). Following Firth's (1957) assertion that 'you shall know a lot about a word from the company it keeps', Baker (2006: 96) argues that '[w]ords […] can only take on meaning […] by the context that they occur in. So in order to understand the meanings of words, we have to compare them in relation to other words.' This collocational theory of meaning postulates that a word's meanings are built up by and in relation to those words that surround it in and across texts (Stubbs, 1996: 172). Collocation analysis is utilised in the present study in order to examine the themes identified through keyword categorisation, providing a more contextually-embedded sense of how these themes are discursively constructed across the forum messages, as well as how such patterns contribute to the overall construction of diabulimia in the corpus. It would be neither practical nor

particularly useful to analyse the collocates of every keyword associated with each theme. Therefore, following Baker's (2006) recommendation, in most cases only collocates surrounding the most "key" lexical items will be examined.

Collocation can be calculated in a variety of ways (Baker, 2010: 107-108). One method, best suited to the analysis of smaller datasets, involves making empirical assessments of collocation based on manual observation of the data (Hunston, 2002). However, corpus tools offer automatic measures of collocation that are both more reliable and more convenient when analysing large datasets (Baker, 2010: 107-108), and so provide a useful means for calculating collocation in the present study. The computer is able to calculate the collocates of words across large numbers of sizeable texts with greater speed, reliability and objectivity than the human observer alone (Hunston, 2002: 12). The results of this calculation are then presented in smaller, more 'manageable chunk[s]' (Baker, 2010: 107-108) that are more conducive to manual inspection than the frankly daunting task of wading through entire texts in search of collocational patterns.

The computational analysis of collocates therefore provides a systematic means for identifying discourses in texts, with recurrent collocations potentially signalling textual traces of discourses (Koller and Mautner, 2004: 223). To recycle a quote from the previous chapter, adopting a Foucauldian conception of discourse, Mills (1997: 17) recommends that we can identify the textual traces of discourses in terms of the 'systematicity of the ideas, opinions, concepts and ways of thinking and behaving which are formed within a particular context.' Given its utility for identifying frequently co-occurring words and broader formulations, the collocation tool is therefore well suited to provide an account of such 'systematic' language use that might signal the presence of a discourse in the corpus data (Baker, 2006).

In view of its utility for examining discourses, the collocation tool has attained staple status in corpus-based discourse studies. In a series of studies examining print media representations of immigrants and asylum seekers, Baker and colleagues (Baker et al., 2008; Gabrielatos and Baker, 2008; Baker, Gabrielatos and McEnery, 2013) reported the tendency for words like *refugees* to collocate with words that framed refugees as being in some way problematic, for instance as an economic burden (*benefits, claiming, receive*) and as engaged in illegal activities (*bogus, illegal, smuggled, detained*). Another collocational trend identified in these studies was the proclivity for the search word *refugee* to occur alongside terms associated with water, such as *flood, flooding, pouring* and *streaming*. Closer analysis of these collocates revealed that they functioned as a series of 'water metaphors' (Baker, 2011: 24), used to negatively frame this population as entering the UK in large numbers and in an uncontrollable and overwhelming manner. In this instance, collocation proved to be a useful tool for revealing ideological uses of language which served to dehumanise refugees and asylum seekers by construing them as a natural disaster (Baker, Gabrielatos and McEnery, 2013: 36).

An example of how collocation can be a useful tool for investigating electronic health communication is offered by Harvey's (2012) study into adolescents' linguistic formulations of mental health concerns. Following an initial keyword analysis, Harvey generated a collocational profile for the keywords *depression* and *depressed* in order to understand how the adolescents contributing the messages featured in his corpus actually used these terms in their advice-seeking passages. Though the words *depressed* and *depression* derive from the same lexical root, Harvey's collocation analysis revealed these items to exhibit rather distinct lexicogrammatical characteristics. Specifically, where the noun *depression* could follow the possessive auxiliary 'I have' ('I have depression') and the lexical verb 'suffer' ('I suffer from

depression'), the adjective *depressed* was found to follow the substantive verb 'am' ('I am depressed') or the verb 'feel' ('I feel depressed'). Harvey (2012) interpreted these lexicogrammatical distinctions as having consequences for how depressive experiences were constructed and understood in his data, postulating the most common syntactical structures featuring *depressed* and *depression* (i.e. 'I am depressed' and 'I have depression') to encode two essential means of representing illness experience, respectively those of "being" and "having" (Fromm, 1979). This study also demonstrates the importance of considering functional as well as lexical collocates, since it was through the examination of both the grammatical and semantic linguistic patterns surrounding the keywords *depression* and *depressed* that Harvey was able to apprehend how the adolescents constructed their illness experiences.

Although corpus software lends a degree of objectivity to the identification of collocates, the human analyst is nonetheless required to make a series of important procedural decisions that will determine what the computer deems to be a collocate of the search word. One such decision concerns the selection of a measure to determine the statistical significance of a collocational pairing. The collocational associations analysed in the present study are calculated using the log-likelihood algorithm (Dunning, 1993). This technique tests the null hypothesis that two words appear no more frequently than would be expected by chance in respect to the frequencies of those words and the size of the corpus under analysis. Using this information, the corpus software is able to establish the confidence with which the analyst is able to state that the two words in question are in fact a collocational pairing and do not just co-occur frequently by chance (Barnbrook, Mason and Krishnamurthy, 2013). Unlike the mutual information measure (MI), which tends to favour collocations involving low-frequency lexical words at the expense of high-frequency function words, the log-likelihood

measure is an effective method for identifying a mixture of grammatical and lexical collocates (Baker, 2006: 102). I did not want to exclude functional words from the collocation analysis, since, although they tend not signal discourses as explicitly as lexical words, functional items can nonetheless indicate broader themes and traces of discourses (Baker, 2006: 123), as Harvey's (2012) study of the collocates surrounding depression demonstrates.

Having decided on the statistical measure, it is then necessary to determine the collocational span, that is, the number of words surrounding the node within which candidate collocates are considered. Following Baker, Gabrielatos and McEnery (2013), collocation is measured in the present study using a span of five words either side of the search word, or "node". This span was selected because it was judged to offer a 'good balance between identifying words that actually do have a relationship with each other (longer spans can throw up unrelated cases) and [gives] enough words to analyse (shorter spans result in fewer collocates)' (Baker, Gabrielatos and McEnery, 2013: 36; see also Baker, 2005). Imposing a minimum frequency threshold for co-occurrence proved a little more challenging, because there are substantial differences between the frequencies of some of the search words, and so this decision varies on a chapter by chapter basis and is detailed as and where relevant throughout the course of the analysis.

3.3.5. Concordance

Although collocates can provide an immediate sense of the themes surrounding a particular word, and so potentially flag up the presence of discourses in the corpus data, a collocation

analysis in itself can provide only limited insight into how those particular discourses and discursive constructions function across the texts under analysis (Baker, 2006: 118-119, 2010: 109; Harvey et al., 2008: 306). Another staple corpus tool, concordance, affords examination of keywords and their collocates in greater contextual detail. Concordance output displays a list of all of the occurrences of a particular search word or phrase in the corpus, with a few words of context (the immediate surrounding text) displayed to the left and right of it (Sinclair, 1991: 32). Through use of the concordance tool it is also possible for the analyst to manipulate and re-shuffle the order in which the concordance lines appear on-screen according to the words surrounding the node, affording rapid assessment of its immediate collocational environment, thereby aiding in the identification of recurring discourses, with frequent patterns rendered more visible to analytical observation (Adolphs, 2006: 52; Baker, 2006: 77-78; Harvey, 2013: 64).

Although one of the main advantages of using concordance lines is that they provide a view of the textual context surrounding a particular word or phrase, the span of the concordance line can still be relatively short compared to the size of the text from which it is taken, and so potentially obscure from view important parts of the sentence or surrounding text that contribute to the meaning of the word or phrase in situ. In the context of the present study, while a standard concordance line is likely to reveal a sufficient portion of smaller forum messages contained in the corpus, significant chunks of larger messages are likely to be hidden away from my analytical view when displayed in this output. Context, as Baker and McEnery (2005: 223-224) point out, is 'still paramount', and not all concordance lines will possess the same influence in terms of signalling discourses. While some concordance lines will reveal the presence of a discourse, others may contain fewer, or at least less-obvious traces, and the discourses they signal might only become apparent when that concordance

line is inspected in its broader, original textual environment. In order to overcome this potential limitation, I follow Harvey's (2013: 64-65) recommendation to support analysis of concordance lines by checking my interpretation against the original message from which each concordance line drives. It is also worth noting at this point that corpus extracts in the present study will not be presented in the form of raw concordance lines, but I will instead provide more expansive samples from the corpus data that are representative of the particular discourse under examination. Where it is both practical and beneficial, some forum messages are reproduced in their entirety.

The more deeply-contextualised view of the corpus data that is afforded by the concordance tool will therefore allow me to closely and qualitatively examine certain words and expressions, gleaned from quantitative measures such as word frequency and keywords, in order to identify the particular discourses that they might signal (Baker, 2006: 71). It is for these reasons, perhaps, that concordance tools are often considered the method of choice for discourse analysts who are keen to harness the possibilities offered by corpus approaches, but are reluctant to abandon altogether the more deeply contextualised view of the data with which they are typically more familiar (Hardt-Mautner, 1995: 24; Baker et al., 2008: 279; Mautner 2009a: 127). Indeed, a number of researchers have demonstrated the utility of concordancing tools for undertaking discourse analysis. For instance, Baker (2006) observed interesting differences between the meanings of the words *bachelor* and *spinster* by analysing the occurrences of these lexical items in the BNC through the prism of concordance. Baker's analysis revealed that, while the word *spinster(s)* tended to accrue negative attributes, such as sexual frustration and unattractiveness, the word *bachelor* had comparatively positive attributes, such as being eligible and fun-loving. Baker also used collocation analyses in this study, though the concordancing tool proved to be a useful measure, in particular for the

word *spinster*, which, due to its relative infrequency in the corpus data, exhibited only a few collocates. Consequently, Baker argues in favour of supplementing collocation analysis with examination of concordances in order to better apprehend discourses that, though significant and interesting, might not emerge through analysis of frequent collocates alone (Baker, 2010: 133).

Throughout the foregoing section I have described the specific corpus procedures that will be undertaken in order to identify and examine the discourses surrounding diabulimia in the present study. Specifically, I will examine the discourses surrounding diabulimia and other, related themes (identified through thematic keyword categorisation) by closely reading the collocates of and concordance lines surrounding their most salient – i.e. most "key" – corresponding keywords. Once I have identified the themes or objects of discursive construction in the corpus through the analysis of keywords, the collocation and concordancing tools present useful means for confirming or refuting my initial impressions and suspicions that particular keywords and other trends signal the linguistic traces of discourses. Perhaps most usefully, once discourses have been identified, the concordancing tool will allow me to explore the likely nuanced ways in which individuals draw upon such discourses when constructing their subjective experiences and understandings of diabulimia in their forum messages. Having argued for the suitability of corpus techniques for meeting the aims of the present study, I will, in the next part of this chapter, turn my attention to the challenges and potential limitations associated with the corpus-based approach to discourse analysis detailed in the foregoing section.

3.4. Challenges and potential limitations of the corpus-based approach to discourse analysis

Like any other methodology, corpus linguistics is not perfect, and extensive summaries of and responses to the most frequent criticisms directed at corpus methods abound in the literature in this area (McEnery and Wilson, 2001; Baker, 2006, 2010; Mautner, 2009b). In the ensuing part of the current chapter I will outline the specific practical and theoretical limitations of corpus linguistic approaches that I deem to be most relevant to the present study and, where possible, offer a defence of my own approach, alluding to how these challenges might be met and potential limitations overcome.

A recurring and long-standing criticism levelled at corpus linguistics approaches is that the corpora they analyse are limited, if not devoid almost entirely, of contextual detail (Widdowson, 1995). The rendering of a text or collection of texts into a corpus is a transformative process, the product of which (the corpus) bears important differences to the original(s) (Crawford and Brown, 2010), or as Widdowson (2000: 7) puts it, '[t]he texts which are collected in a corpus have only a reflected reality', for '[r]eality […] does not travel with the text'. Due to this transformation, Mishan (2004: 219) questions the 'authenticity' of corpora, claiming that the process of transposing texts into computer-readable, language-only corpora 'forfeit[s] a crucial criterion for authenticity, namely context'. Even the most enthusiastic corpus linguists appear to concede this particular methodological issue (Sinclair, 1991; Tognini-Bonelli, 2001: 2; Hunston, 2002: 23; Baker, 2006: 7-8/25; Mautner, 2009b: 34).

While this limitation is true of all types of corpora, it arguably presents a greater obstacle to studies of large, general corpora which consist of texts from a wide range of communicative genres than it does to small-scale, specialised corpora, such as that analysed in the present study, which contains texts of a single genre and from a single communicative context, and so can be analysed in greater contextual detail (Koester, 2010). Unlike in many large, general language corpora, which contain small *samples* of vast numbers of texts, the corpus in the present study contains conversational threads, and the forum messages within them, in their entirety. Furthermore, the forum messages contained in the data are all composed in the same medium (asynchronous, electronic internet fora), from only three websites with which it has proven relatively easy for me, the researcher, to become acquainted. It is therefore possible for me to read back over the texts' original contexts and feed the insights gained back into my interpretations of the corpus data, for instance to assess how particular messages might respond to others posted earlier to the same thread. This process is made all the easier when, as in the present study, the corpus builder and analyst are the same person. As Flowerdew (2004: 16, original emphasis) argues,

> Widdowson's point is a valid one as it cannot be denied that in order to fully and accurately *interpret* the corpus data it is necessary to be cognizant of the role that the *context of situation* and *context of culture* play in shaping the discourse under investigation. This is where I see the value of working with specialised corpora where the analyst is probably also the compiler and does have familiarity with the wider socio-cultural dimension in which the discourse was created […]. The compiler-cum analyst can therefore act as a kind of mediating ethnographic specialist informant to shed light on the corpus data.

A proponent of this technique of combining top-down insights with bottom-up corpus-derived evidence, Mautner (2009a: 140-141), suggests that it is the role of the corpus builder to ensure that information about the texts that might be lost once they are rendered into a corpus remains in some way accessible throughout the analysis. Accordingly, the corpus analysed in the present study contains contextual information in the form of meta-data relating to the original composition of the forum messages. For each individual message, the corpus contains details of its thread of origin, its sequence number in that thread, the date on which it was posted, and the contributor's username. While I would agree that the corpus examined in this study provides, like any other corpus, a somewhat decontextualized representation of the texts it contains, I would also suggest that, by means of recourse to the corpus metadata and the possibility to view the messages in their wider textual surroundings, the authentic quality of the original texts is, to some extent, preserved. It is also worthwhile acknowledging the argument that some degree of data decontextualization can serve as a methodological advantage (Hunston, 2002: 123). Specifically, Mautner (2009b: 34-35) argues that the contextual 'stripping down' of texts when they are rendered into corpora might be helpful for reducing vast quantities of data (which might overwhelm even seasoned corpus linguists) to their most essential, linguistic (from a corpus linguistic perspective) parts. Though I do, throughout the course of the analysis, consult many of the forum messages in their original forms, this process of what Mautner (2009b: 34-35) terms 'aggregation' does indeed prove helpful, initially at least, for establishing a lexical footing in the data.

Another limitation of corpora is that they cannot reveal *absences*, that is, they cannot tell us what might have occurred in the texts under analysis, but did not (Hunston, 2002: 22). However, there are ways for the analyst to overcome this particular quandary, too. Baker (2010: 141-142) proposes a multi-dimensional approach, according to which the analyst

consults other kinds of information that are in some way related to the text type under inspection, so that comparisons can be made. In the present study, it is possible for me to consult research into the discursive construction of, for instance, diabetes and other eating disorders, to compare the discourses identified with those that I identify in the forum messages I am analysing to determine absences that might be significant and thus worthy of closer attention.

The criticisms of corpus linguistics outlined above should not preclude the use of corpus methods for discourse analysis, though they might go some way toward explaining why discourse analysts have generally been slow to take up corpus techniques in their research (Mautner, 2009b: 34). I would argue that the criticisms directed at corpus methods outlined in the foregoing section are more applicable to large-scale corpora designed to be generalizable on a grand scale, than they are to small-scale, specialised corpora, such as that to be analysed in the present study. The next section of this chapter is dedicated to detailing the construction of the corpus examined in this study.

3.5. The Diabulimia Fora Corpus: design and compilation

In this section I will describe the design and development of the Diabulimia Fora Corpus (henceforth DFC); a specialised corpus, designed specifically for the present study, that consists of messages related to the topic of diabulimia that have been posted to English-speaking online diabetes fora. The ensuing section provides a detailed account of all design-related decisions made during the development of the DFC, justifying, most crucially, why this small, highly-specialised corpus is not only sufficient, but actually well suited for

meeting the aims of the present study. A digital copy of the DFC can be found in the CD-ROM enclosed in Appendix A.

3.5.1. Sampling

The first step in developing the DFC involved identifying candidate fora for inclusion in the corpus. This presented an immediate methodological barrier since, at the time of corpus design (and still at the time of writing), I was not able to identify any fora dedicated to the topic of diabulimia specifically; testament, perhaps, to its contested status as a medical condition, as well as to a more general lack of awareness of it. Therefore, I instead decided to source diabulimia-related messages posted to fora dedicated to the topic of diabetes. I chose to analyse messages posted to diabetes fora, as opposed to eating disorder or mental health fora, since all individuals who self-identify as having diabulimia would also, by dint of its dual-diagnostic component, also self-identify as having diabetes, which would suggest that these fora offer a promising site of inquiry for the present study.

Candidate fora for corpus inclusion were identified through a Google search using the query term *diabetes forum* and *diabetes message board*. These searches collectively yielded over 120 million results, far too many to inspect manually, so I isolated the top 100 results arising from each search[2]. It was then necessary to inspect each website generated in order to identify fora that were fit for corpus inclusion. As might be expected, there was significant overlap among the respective results for each search engine query. The majority of the results

[2] The vast majority of the fora generated by the search results were displayed within the top six pages of results for each search. Pages seven to ten produced comparatively far fewer, justifying my decision to consider the top ten pages of results for corpus inclusion.

generated were not fora, but actually general diabetes information websites that did not host an interactive element. Only fora which satisfied all of the following criteria were considered as candidates for corpus inclusion:

1. English-speaking;
2. Dedicated to diabetes;
3. Hosted peer-to-peer, user-generated, as opposed to practitioner-directed and practitioner-led advice (to ensure that the corpus was not overly representative of the diabulimia-related discourses drawn upon by practitioners and other health care professionals);
4. Not affiliated to a health care provider or charity, for such organisations typically involve practitioners and other specialists in the delivery and/or monitoring of the health-related advice contained in their fora, and so might be said to more accurately represent practitioner to patient, rather than peer-to-peer communication;
5. Meets ethical criteria: does not require registration or login to view content, explicitly informs users of the public nature of their contributions and does not explicitly discourage, or state requirement of permission for use of content for research purposes (ethical criteria for data collection are discussed in greater detail later in this chapter).

Once these selection criteria were imposed, the number of candidate fora narrowed, significantly, to five. Most of the fora that were generated by the internet searches were either affiliated to health care providers and charities, not dedicated to diabetes specifically, or failed to meet the ethical criteria outlined briefly in the fifth criterion (explored in more detail later).

The next stage in corpus construction involved sampling specific diabulimia-related threads from within the five candidate fora. Each diabulimia-related thread was included in its entirety. This is what I define to be a "text" for the purposes of the present study. The fora included in the DFC are all sequential, which means that many of the messages they contain are constructed in response to messages previously posted to the same thread. To have sampled individual diabulimia-related messages would have meant decontextualizing those messages contained in the corpus by divorcing them from those messages preceding and following them in the threads; that is, from those messages to which they might be responding or which might have been written in response to them. To have reduced these threads to their constituent messages would, in my view, have been to absolve them of their contextual richness almost entirely.

Sampling threads was a necessarily selective task for two reasons. First, each of the candidate fora hosts a large and active community, with tens of thousands of members, tens of thousands of threads and hundreds of thousands of messages. While the substantial volume of interactions within these fora reflects the general popularity of online health advice- and support- seeking – and with that the pressing need for research that examines communication in this context – it cannot *all* be contained in the corpus. Secondly, the nature of the inter-member support and advice in these fora is not restricted to matters directly related to diabetes, let alone to diabulimia. While many threads centre on giving advice on issues directly related to diabetes, a significant portion also appear to relate to topics such as television, sport, celebrity, news and current affairs, etc., which would likely provide limited insight into the discursive construction of diabulimia in this context. While I do not consider such interactions unimportant – in fact, I acknowledge their significant interpersonal and social value in this context (Coulson, Buchanan and Aubeeluck, 2007) – it was nevertheless

necessary to narrow the focus of my data so that the corpus was representative of diabulimia-related interactions, in line with my research aims.

Threads were sampled if the term *diabu** (with the asterisk acting as a wildcard to account for *diabulimia* and *diabulimic*) occurred in the thread title once and/or throughout the body of the thread on a minimum of three occasions. This ensured that the content of the sampled threads was sufficiently focused on the topic of diabulimia that it would be likely to provide evidence of the discourses on which contributors drew in their messages. This process narrowed the number of candidate fora further, with only three of the five fora actually containing user-generated content containing the search term *diabu**. [3] Despite their differing domain extensions (.co.uk vs. .com), all three websites are accessed by global communities of English-speaking users. All of the threads which satisfied the selection criteria during the period 2007 (earliest available thread among the three fora) to 2014 (time of data collection) were included in the corpus.

Each forum message is accompanied by metadata detailing the author's username and the time and date that it was posted. This metadata was removed from the analysis corpus, since it would otherwise skew the frequency and keyword calculations. As such, only the message contents are included in the corpus itself, though the metadata is recoverable at any time, stored in a separate password-protected file.

[3] It is worth noting that it is possible that diabulimia had been discussed in other fora or threads, but that the threads or individual messages that contained the term had either been deleted due to the website's storage limitations or even removed by a moderator if the particular discussion violated forum rules, for instance which prohibited what might be perceived as the encouragement of disordered or substance-abusive practices. I also acknowledge that it is possible for individuals to discuss diabulimia without actually labelling it as such.

3.5.2. Size

The DFC contains 1,337 messages, distributed across 81 threads during the period 2007 to 2014. The corpus is 119,054 words in size; small as compared to general language corpora, particularly those described by Kennedy (1998) as 'second generation mega-corpora', such as the BNC and Bank of English, which total 100 million and 450 million words, respectively. Flowerdew (2004: 19) suggests that a corpus might be described as 'small' if it contains fewer than 250,000 words. The DFC is therefore, according to Flowerdew's taxonomy, a relatively small corpus, even by the standards of specialised corpora. The DFC's rather modest size is a consequence of practical constraints, namely the limited availability of fora and threads that satisfy the sampling criteria outlined earlier. To ensure that the corpus was maximally representative for its size, and that it was not necessary to wait for more threads to become available, I employed a modified saturation point sampling measure (Belica, 1996). This involved dividing the corpus into three equal parts (each part including threads from each forum) to check that there were no significant differences in terms of the keywords generated. On this basis, it was decided that it would not be particularly beneficial in the case of the present study to add more threads to the corpus.

The question of how big a corpus ought to be has long motivated, and continues to motivate still, substantial debate in the corpus linguistics literature (Reppen, 2010: 31-32). Traditionally, the general consensus regarding corpus size was "the bigger the better"; that we should not restrict the size of our corpus, and build it as big as is practically possible (Sinclair, 1991). However, other researchers have more recently postulated that the optimum size of the corpus should not be exceeded, even if it is practically possible to do so, that is, that 'a relatively small corpus is not just sufficient but also *necessary*' (Hunston, 2002: 26,

emphasis added). This latter position was put forward partly in response to the technological constraints of some corpus tools, which impose limits on the number of concordance lines that can be generated, making it difficult to extract and closely analyse the more frequently-occurring features of the corpus comprehensively (Biber, Conrad and Reppen, 1998: 285-286), but mainly in the belief that smaller corpora are more facilitative of in-depth, granular analyses compared to larger, multi-million word corpora.

While some would undoubtedly still concur with either one of these views today (i.e. bigger is better vs. smaller is better), a growing acknowledgement of the complexity of the issue of corpus size has given rise to the view that there are, in fact, no hard-and-fast rules regarding how big (or small) a corpus ought to be (Baker, 2010: 95-96). Instead, increasingly greater emphasis is being placed on judging what corpus size is *optimal* for the nature of the research for which it is selected or designed (Gries and Newman, 2014: 259). As McEnery, Xiao and Tono (2006: 72) put it, the research question 'controls all […] corpus-building decisions, including size. Even if the conditions […] allow for a large corpus, it does not mean that a large corpus is what you want.' What can be deemed an 'appropriate' size for a corpus therefore varies on a study-by-study basis, and depends, chiefly, on two factors: its suitability to the research question and practical limitations (McCarthy and Carter, 2001).

The use of a small corpus in the present study is conducive to linguistic examination that is arguably more fine-grained than that which would conceivably be possible with a much larger corpus. The sheer volume of language data in many larger corpora defies such close analysis, making the sort of close linguistic examination that I aim to undertake in this study at the very least impractical (McEnery, Xiao and Tono, 2006: 72). This argument is not one against the use of large corpora per se, for large corpora have innumerable applications,

especially where large-scale quantification is required (e.g. for the purposes of dictionary building, language teaching, descriptive accounts of features of general language use, etc.) (Reppen, 2010). However, it is intended to point up the usefulness of smaller, specialised corpora, such as the DFC, for discourse analytic research. Indeed, as Flowerdew (2004) suggests, very large corpora tend to rely more on quantitative methods for analysis, while smaller corpora are more conducive to qualitative analyses which, although not as generalizable, can yield richer, more detailed insights into language in particular contexts (McCarthy and Handford, 2004). This is echoed by Harvey (2013: 75), who observes,

> [s]pecialised corpora, […] given their size and composition, their essential manageability, are often subjected to qualitative-based analyses. The close examination of concordance lines with recourse to the linguistic co-text afforded by qualitative approaches, for example, provides a rich source of data to complement more quantitative-based studies […]. Indeed, a characteristic feature of many specialised corpora studies […] is their use of both quantitative and qualitative data.

Harvey's assertion is of particular relevance to corpus-based studies of health-related communication, which typically examine language produced by a certain clinical population, or within a particular clinical context (Hunt and Harvey, 2015; Brookes and Harvey, forthcoming), and so construct specialised corpora to represent this specific type or variety of communication (Crawford, Brown and Harvey, 2014). To offer just a handful of illustrative examples, Adolphs et al. (2004) studied the interactional strategies employed in the context of telemedicine by examining a corpus of NHS Direct recordings that amounted to approximately 62,000 words in size. Harvey et al. (2007) examined the key topics and

linguistic features of adolescent health-related communication emergent from a 400,000 word corpus of messages sent to an adolescent health advice website. In their analysis of cancer metaphors, Semino et al. (2015) compared two specialised corpora of online cancer fora communication, one of interactions between health professionals and the other containing interactions between patients that were approximately 253,000 and 500,000 words in size, respectively. Of course, this does not mean to suggest that only small corpora are used (or indeed useful) in corpus-based health communication research, but, rather, that smaller, specialised corpora tend to be utilised extensively in this area since they satisfy health communication scholars' desire to conduct close, detailed analyses of language as it relates to particular illnesses, health-related phenomena or clinical contexts. The benefits of analysing small, specialised corpora are not just harnessed by health communication researchers, for instance Mautner (2009b, 2012) constructed a corpus of just over 4,000 words containing email exchanges related to 'anti-terror laws' between former UK Prime Minister Tony Blair and columnist Henry Porter, in order to examine the interactants' lexical choices and argumentative strategies, while Vaughan (2008) investigated the role of humour in English language teacher faculty meetings based on a specialised corpus of just 40,000 words of meeting transcripts.

3.5.3. Balance

The balance of the DFC was determined largely by practical issues, namely in terms of the limited availability of suitable diabetes fora at the time of corpus construction. The table below provides a forum-by-forum breakdown of the numbers of threads, messages and words contained in the DFC.

Table 1: Forum-by-forum numerical breakdown of threads, messages and words contained in the DFC

Forum	Threads	Messages	Words
Diabetes.co.uk	10	108	17,770
diabatesdaily.com	36	648	34,548
Diabetesforums.com	36	588	66,736
Total:	82	1,344	119,054

As can be observed in the above table, the DFC is not equally balanced in terms of the numbers of individual threads, messages and words from each forum it contains. The reason for this imbalance is that the corpus represents all of the data contained within the threads that met the selection criteria. As such, the contribution of each forum varied, in some cases quite considerably, in accordance with the size of each forum's membership and the general level of activity on each site. I could have balanced the corpus more evenly by placing a limit on the larger threads or messages. However, I followed Adolphs's (2006: 6) recommendation that corpus creators should, if possible, aim to maintain the integrity of each text contained in their corpus, so that the texts it contained can be examined in their original textual contexts. Such an endeavour can prove impractical in the development of corpora containing texts of considerably varying sizes, since the inclusion of such texts in their entirety can result in substantial corpus imbalance; for instance, the texts contained within the BNC vary in size by thousands of words. Fortunately, this does not present much of an issue in the construction of the DFC, since I am not inclined to compare the language across the threads.

Given the un-restricted nature of computer-mediated interaction and the multi-authored nature of the forum threads, there is no "standard" message or thread size. However, the average length of each individual message (89 words) and thread (1469 words) proved sufficiently short that they could be analysed without needing to be "capped" to a more manageable size. Restricting messages or threads in such a way would arguably interfere with their textual integrity and risk omitting aspects of the data that might play an integral part in the overall creation of meaning or instantiation of a discourse (Adolphs, 2006: 6). Consequently, each thread, and each message contained therein, is represented in the corpus in its entirety, irrespective of size.

The balance of a corpus is most appropriately assessed according to non-linguistic criteria (McEnery, Xiao and Tono, 2006), usually in terms of (a) the backgrounds of the contributors of the communication and/or (b) the types of text (e.g. genre, mode, etc.) that the corpus represents. It was not possible to sample the corpus in terms of the forum contributors' backgrounds, since I was not privy to such information, as is often the case when dealing with data derived from anonymous online environments (King, 2009: 308). As such, the balance of the DFC is better assessed in terms of the types of texts that it contains. Since the threads contained in the DFC are mono-modal, derive from a single communicative domain, are all multi-authored and broadly share the same topic, it seems justified to treat all of the texts contained within the corpus as constituting a homogeneous text type.

3.5.4. Representativeness

Allied to the issue of corpus size is that of representativeness. A corpus can be described as representative if the findings derived from it can be generalised to the entire language or linguistic variety that it is designed to represent (Hunston, 2002). Sampling techniques typically require that corpus builders have some awareness of the full extent and range of possible texts of which the corpus is designed to be representative, as Teubert and Čermáková (2007: 65) point out, 'we are only justified in claiming that a given corpus is representative of a discourse, however we have defined it, if we have, at least in principle, access to all the texts the discourse consists of.' This point is also observed by Adolphs (2006: 20), who argues that to develop a corpus that is truly representative, one must know the consistency of the total number of texts that the corpus is intended to represent, that 'universe of possible texts' (Titscher et al., 2000: 33), as it were, from which the corpus has been sampled (see also: Hunston, 2002: 28; Mautner, 2009a: 130). The extent to which this level of representativeness can realistically be accomplished depends almost entirely on the nature of the corpus being compiled, as well as the kind of language that it is designed to represent. Full lexical representativeness is a fairly achievable target for the design of some corpora, for instance those which aim to represent a closed text type, such as the entire published works of a particular novelist or playwright. However, the design of a corpus of which one can claim full lexical representativeness, as Teubert and Čermáková (2007) would define it, becomes problematic when we have no way of knowing that 'universe of possible texts' from which the texts in the corpus are taken (Titscher et al., 2000: 33), such is the barrier to accomplishing and evaluating "true" representativeness faced when developing most corpora of online communication (Fletcher, 2004; Biber and Kurjian, 2007; Claridge, 2007).

Given the ocean of electronic support communities that exist on the internet, the DFC is unlikely to be representative of all online diabulimia-related disclosure. The following analogy for accomplishing full corpus representativeness offered by Nelson (2010: 57), but credited to a personal correspondence with Jeremy Clear in 1997, encapsulates this methodological quandary particularly well,

> I have a favourite analogy for corpus linguistics: it's like studying the sea. The output of a language like English has much in common with the sea; e.g. – both are very very large… - and difficult to define precisely, - subject to constant flux, currents, influences, never constant, - part of everyday human and social reality. Our corpus building is analogous to collecting bucketfuls of sea water and carrying them back to the lab. It is not physically possible to take measurements and make observations about all the aspects of the sea we are interested in *in vivo*, so we collect samples to study *in vitro*.

There is no principled (or practical) method available for measuring the degree to which my corpus represents all diabulimia-related interactions online. Any attempt to ascertain as much would require that I search all corners of the internet and would likely resemble attempting to hit a moving target, given that fresh online content is generated every second. Though the DFC does not, strictly speaking, represent a "closed" text type, the number of texts (i.e. threads) available for inclusion in this corpus was actually delimited by practical constraints and the fulfilment of ethical criteria. Claims of representativeness in relation to the DFC are therefore necessarily modest, owing in the main to practical limitations. Accordingly, the DFC can be described as representing all diabulimia-related discussions (as I have defined

them) taking place in three specific online, English-speaking diabetes fora during the period 2007 to 2014.

Having explored the issue of representativeness, it also seems like an opportune moment to acknowledge that the DFC contains messages that are written by a mixture of people who do and do not have first-hand experience of diabulimia. This does not undermine the usefulness of messages written by contributors who do not have experience diabulimia themselves, for the discursive construction of any health phenomenon is never the sole preserve of those who have lived experience of it. The discourses that are drawn upon by the friends and relatives of people experiencing diabulimia, or even by forum members contributing to a thread simply because they are interested in the topic, still contribute to the overall discursive construction of diabulimia in this context. Therefore, while this feature of the forum messages does not undermine the value of the DFC as a resource through which to explore the discursive construction of diabulimia, it is nonetheless something of which I have to be aware when interpreting the content of the messages contained in the corpus.

3.5.5. Corpus cleaning and preparation

The threads contained in the DFC were extracted in text-only format, directly from their source websites. However, some corpus "clean up", as it is commonly referred, was required: namely the deletion of one duplicate message (this is already reflected in the quantitative information provided about the corpus thus far).

Another issue that had to be considered relating to the textual integrity of the corpus concerned the use of unconventional spellings and non-standard word forms, a characteristic feature, as we have seen, of online communication (Barton and Lee, 2013). This issue is of particular relevance to studies of online health-related communication, in which non-experts routinely draw upon morphologically complex medical and technical vocabulary in their interactions (Barker, 2008). Throughout corpus complication I noticed some variation in the spelling of the word *diabulimia*, observing it to be spelt *diabulemia* on at least one occasion. However, I decided not to standardise the spelling of this nor any other word in the corpus at this point. This way, the corpus fully reflects in every way the linguistic character of the messages posted to the fora I am analysing.

At the point of corpus construction I feared that such orthographic variation might skew statistical procedures undertaken as part of the corpus analysis, in turn distorting important quantitative output, such as word frequency and keyword information (Kilgarriff and Grefenstette, 2003). However, recent research suggests that this ought not to be a cause for concern in the kind of keyword-driven discourse analysis that I am undertaking here. Smith et al. (2014) examined the effect of spelling variation on keywords generated from Harvey's corpus of adolescent health emails in order to establish the extent to which misspellings and non-standard formulations skewed the keywords generated by the corpus software. In this study, keywords produced from a version of the corpus in which the spelling errors were corrected were compared against keywords generated from the original, unedited version of the same corpus. Interestingly, the researchers found each keyword's respective ranks to be very similar in both lists. This study therefore suggests that, depending on the research goals, keywords can be generated reliably without the need for spelling standardisation (in electronic health communication data at least). While the spelling variation observed in DFC

is therefore unlikely to present an issue in terms of generating word frequency and keyword lists in the present study, it does present the risk of my potentially overlooking interesting collocates of, and concordance lines surrounding, items that might exhibit orthographic variation in the DFC. To circumvent this issue, I follow Harvey's (2013: 78) recommendation to scan the word frequency list to identify variants of particularly complex words (which are more likely to be misspelt), so that these can be accounted for in the analysis of collocates and concordance lines.

Another challenge to the design of a corpus of CMC is posed by the use of emoticons, a characteristic feature of much online interaction used to convey particular emotions or to simulate physical interactional gestures that are typically non-communicable in faceless environments (e.g. winking, waving, hugging, and so forth) (Claridge, 2007). During the process of extracting threads from the fora, emoticons travelled across into the corpus with varying success. Simple emotions, such as a 'smiley' face – denoted in the corpus as :) – were automatically reduced to this text-only format when transferred into the corpus document. However, other, more elaborate emoticons were automatically omitted at this point. In the next part of this chapter I explore the ethical issues confronted during corpus construction and general study design.

3.6. Ethical considerations

Ethical issues in internet research are hotly debated by researchers working within a range of disciplines (Mann and Stewart, 2000; Eysenbach and Till, 2001), a trend to which the corpus linguistics literature is a rather unhelpful exception (McEnery and Hardie, 2012: 60). There

is, moreover, a distinct lack of clear ethical guidelines for collecting naturally-occurring online data, both where existing research and authorities, such as the British Association of Applied Linguistics (BAAL), are concerned (see discussion in Hunt, 2013: 92-93). Pfeil and Zaphiris (2010) propose the following three principal considerations for the ethical collection of naturally-occurring internet data: (i) obtaining informed consent, (ii) distinguishing public and private domains, and (iii) preserving participants' privacy and anonymity. I will now explore each of these three considerations in greater detail with respect to the collection of the internet forum data sampled as part of the DFC.

3.6.1. Informed consent

Informed consent requires that researchers inform individuals of their intention to collect data of which those individuals might be considered to have some sense of ownership, and to explain the purpose and nature of the research being undertaken to afford those individuals the opportunity to make an informed decision as to whether or not they consent to their data being used in that research. Obtaining informed consent would prove deeply difficult in the context of the present study, not least because of the anonymous nature of the internet fora examined (King, 2009: 305). In such cases, Sharf (1997) proposes that data be collected from only those fora that facilitate email communication with anonymous contributors, so that informed consent can be obtained post-hoc in relation to existing forum posts and in advance of collecting data in the future. However, this measure is not practical when examining fora to which thousands of people contribute, and also assumes that those contributors will regularly visit their forum-affiliated email accounts, which is often not the case.

Another option for obtaining consent for using internet forum data is to seek permission from the moderators who are responsible for monitoring the content of the fora under examination (Demmen et al., 2015). However, such a measure would arguably attribute a great deal of power and responsibility to those relative few moderators, who cannot be assumed to represent the heterogeneous views of thousands of forum participants, the vast majority of whom they are unlikely to have ever met or interacted with directly (Eysenbach and Till, 2001).

On the other hand, Malik and Coulson (2011: 3) urge consideration of the potentially negative consequences of obtaining consent from the members of an internet forum community. These authors warn that by publicly announcing their (until then, passive) observation of forum interactions, researchers risk disrupting the supportive, confidential dynamic which likely makes that particular communicative environment so trusted and valuable for its contributors, who may perceive it as their safest means for disclosing their personal health-related concerns (Coulson, 2005). An acute awareness of the researcher's presence might also negatively influence the candour and openness of the naturally-occurring communication featured in that context, potentially impinging upon its disinhibited quality which makes it so appealing to researchers who wish to examine health-related disclosure in the first place (Malik and Coulson, 2011: 3).

3.6.2. Public and private domains

The second consideration when collecting naturally-occurring internet data rests on the distinction between public and private domains (Gruber 2008: 60), where informed consent is

generally not considered to be a requirement for the collection of data occurring in public, as opposed to private, settings (Friginal and Hardy, 2014: 226-227). However, the distinction between public and private domains on the internet is a rather complicated one, with online mediums of interaction widely considered to blur the boundaries between the two (King, 2009: 306). According to Hewson, Vogel and Laurent (2015) there are two principal reasons for this. First of all, a great deal of internet communication is conducted in domains that might be considered to be simultaneously public and private, for instance sitting in the private space of one's home while typing messages to a public space, such as an open access website or forum. Secondly, given the diverse range of purposes for which people communicate online, it is not always easy to apprehend how individuals might interpret the level of privacy of the online spaces they occupy.

For the purpose of the present study, I determined the level of privacy of the fora sampled for corpus inclusion using Eysenbach and Till's (2001) framework for assessing the level of privacy of forum websites. This framework commendably attempts to consider the issue of privacy from the perspective of the forum users themselves, rather than researchers or website moderators/administrators. The first factor that Eysenbach and Till (2001) recommend we consider is the level of security encountered when accessing a forum. The content of some fora is password protected, with members required to register, generate a password and username and, in some cases, obtain moderator approval before they can contribute to and sometimes access user-generated content. On the other hand, some fora are openly accessible to the public, with no sign-up or log-in required to access or contribute its content. Eysenbach and Till (2001) contend that while members of the former type of group might reasonably perceive their group to be private, since only other members can read their contributions, the latter type can be considered a public domain, for it is accessible by anyone

with an internet connection. Eysenbach and Till (2001) also suggest that we can assess the level of privacy of a forum according to the number of members it has. A forum with a small number of members might be perceived by its visitors as constituting a more exclusive, intimate domain, as compared to those fora that have hundreds and even thousands of members, which are less intimate and so might be considered more public, since any one message can be read by a wide range of people typically unknown to the person who wrote it (Eysenbach and Wyatt, 2002). Finally, Eysenbach and Till (2001) point out that most fora now provide guidelines for users, such as terms and conditions and Frequently Asked Questions (FAQ) pages, which offer explicit, user-friendly information about the level of public accessibility of the user-generated content they contain, as well as the level of confidentiality that users can expect when they register with and contribute to the forum. Eysenbach and Till (2001) argue that those websites which advise users that their contributions are not confidential but openly accessible to the public can be considered to be more public than private.

Following Eysenbach and Till's (2001) suggestions, I have intentionally sampled threads from fora that: (i) require no login or registration to access the messages, (ii) have large numbers of members (at least 1,000; Campbell, Coulson and Buchanan, 2013) and (iii) outline terms and conditions which state that the user-generated content is non-confidential and open-access, and which do not expressly preclude or discourage researchers from using forum content for research purposes[4]. The fora featured in the DFC are therefore considered to be in the public domain for the purpose of the present study, meaning that informed

[4] It is possible for websites to change their terms and conditions and to make once publicly-accessible content viewable by users-only, and vice versa. As such, it is possible that participants may consider their publicly accessible contributions to be private, because of a change to the website terms and conditions since the original post. For my part, I could only evaluate the websites' terms and conditions at the time of data collection.

consent was not deemed to be necessary. This constitutes a fairly standard position regarding the ethical collection of online data (see for example studies by Seale, Ziebland and Charteris-Black; Malik and Coulson, 2011; Hunt, 2013; Demmen et al., 2015).

3.6.3. Data anonymisation

Even if the data I have collected for the present study can reasonably be considered to exist in the public domain, I nonetheless took measures to protect the individual contributors' rights to privacy and anonymity when communicating online (Pfeil and Zaphiris, 2010), an endeavour that seemed all the more pressing given the sensitive topic of the discussions (Mann and Stewart, 2000: 20). On some occasions across the forum data, contributors disclosed their real names or locations, or made direct reference to others by name, including usernames. In order to protect the contributors' online and offline identities, such information, by which an individual might be identified, including names, usernames, locations, web addresses and so forth, is removed from corpus output observable by anyone but the researcher, for example in published concordance lines, collocation output and more expansive corpus samples (Friginal and Hardy, 2014: 226-227). All names and usernames are replaced with the tag [NAME], all locations with the tag [LOCATION] and all hyperlinks with the tag [URL]. Full ethical approval was obtained from the University of Nottingham (UK) prior to the commencement of data collection.

3.7. Chapter summary

This chapter has introduced the analytical methods adopted in the present study, along with the data on which the analysis is based. The first half of the chapter outlined the mixed methods, corpus-based approach to discourse analysis I am adopting in the present study, including detailing the specific corpus procedures that are adopted in conjunction with more manual discourse analytical techniques in order to examine the discursive construction of diabulimia. The chapter then detailed and justified the design-related decisions made in the construction of the DFC, the corpus analysed in the present study, before concluding with due consideration of the ethical issues that attend to the collection and examination of online data.

4. Surveying the DFC: frequency, keywords and thematic keyword categorisation

4.1. Introduction

This introductory analytical chapter provides a quantitative survey of the general linguistic patterns and themes emergent from the DFC. Specifically, the quantitative corpus measure of frequency is used to highlight the most frequent words in the corpus, in so doing providing an immediate sense of the linguistic landscape of the forum messages that it contains. Following this, the keywords measure is used to isolate statistically salient lexical items in the corpus, which are then resolved into themes to be explored in the forthcoming chapters.

4.2. Frequency analysis

The first step in the analysis involved generating a word frequency list for the DFC using the wordlist function in *WordSmith Tools* (Scott, 2012). As a brief reminder, measures of frequency indicate the frequency of each word that occurs throughout the corpus. In the present study, this information provides a simple but powerful means for learning about the linguistic landscape of the forum messages contained in the DFC. Generated via this computational function, the fifty most frequent words in the DFC (an arbitrary cut-off point) are displayed in table 2, below. For comparative purposes, I have also included the corresponding information for the fifty most frequent words in the spoken and written components of the BNC. This comparative element helps to contextualise the frequency information for the DFC by providing a sense of how the language used in the forum

messages it contains might be similar to or differ from what we might consider to be 'general' English usage (McCarthy and Handford, 2004: 172-173). A digital copy of the 500 most frequent words in the DFC (pre-set limit in *WordSmith Tools*) can be found in the CD-ROM enclosed in Appendix A. A printed version of this list is provided in Appendix B.

Table 2: The 50 most frequent words in the DFC and the BNC spoken and written

	DFC	Freq.	%	BNC spoken	Freq.	%	BNC written	Freq.	%
1	I	4,671	3.89	THE	413,014	4.09	THE	5,476,154	6.28
2	TO	3,869	3.22	AND	265,797	2.63	OF	2,805,729	3.22
3	AND	3,377	2.81	I	246,286	2.44	TO	2,308,681	2.65
4	THE	3,251	2.71	TO	236,051	2.34	AND	2,303,398	2.64
5	A	2,515	2.09	YOU	229,320	2.27	A	1,917,636	2.20
6	YOU	2,096	1.75	A	207,095	2.05	IN	1,762,458	2.02
7	OF	1,843	1.53	IT	180,450	1.79	IS	854,934	0.98
8	THAT	1,805	1.50	THAT	180,332	1.79	THAT	846,235	0.97
9	IT	1,798	1.50	OF	177,363	1.76	FOR	803,244	0.92
10	IS	1,602	1.33	IN	142,856	1.41	WAS	762,011	0.87
11	MY	1,402	1.17	IS	98,086	0.97	IT	707,319	0.81
12	IN	1,259	1.05	ER	88,187	0.87	ON	638,944	0.65
13	FOR	1,226	1.02	ON	82,256	0.82	WITH	594,915	0.68
14	HAVE	1,197	1.00	YEAH	81,550	0.81	AS	592,730	0.68
15	WAS	986	0.82	WE	79,368	0.79	BE	578,535	0.66
16	WITH	931	0.78	WAS	78,559	0.78	HE	514,430	0.59
17	BUT	923	0.77	THEY	71,135	0.70	BY	491,638	0.56
18	THIS	901	0.75	FOR	70,946	0.70	AT	464,812	0.53
19	NOT	882	0.73	HAVE	69,615	0.69	I	410,648	0.47
20	ON	851	0.71	IT’S	68,567	0.68	ARE	400,655	0.46
21	YOUR	823	0.69	WHAT	67,338	0.67	FROM	393,555	0.45
22	BE	797	0.66	BUT	65,996	0.65	HIS	384,544	0.44
23	INSULIN	787	0.66	ERM	62,128	0.62	THIS	384,090	0.44
24	ARE	753	0.63	WELL	61,827	0.61	HAD	373,146	0.43
25	SO	714	0.59	SO	60,918	0.60	NOT	371,992	0.43
26	AS	710	0.59	BE	60,889	0.60	HAVE	368,023	0.42

27	HER	682	0.57	THIS	59,156	0.59	BUT	357,925	0.41
28	SHE	666	0.55	NO	58,341	0.58	WHICH	333,941	0.38
29	ME	629	0.52	ONE	57,672	0.58	YOU	329,966	0.38
30	IF	578	0.48	HE	57,325	0.57	OR	325,544	0.37
31	WEIGHT	559	0.47	KNOW	57,318	0.57	AN	309,079	0.35
32	CAN	538	0.45	DO	57,315	0.57	THEY	292,420	0.34
33	JUST	531	0.44	THERE	55,224	0.55	SHE	281,050	0.32
34	WHAT	517	0.43	OH	52,167	0.52	HER	280,260	0.32
35	AT	515	0.43	AT	49,351	0.49	WERE	274,225	0.31
36	ALL	514	0.43	NOT	49,125	0.49	THEIR	235,280	0.27
37	OR	513	0.43	GOT	48,464	0.48	ONE	234,744	0.27
38	DO	512	0.43	IF	48,280	0.48	ALL	233,695	0.27
39	ABOUT	508	0.42	WITH	47,431	0.47	BEEN	232,613	0.27
40	I’M	453	0.38	ALL	45,662	0.45	HAS	232,555	0.27
41	LIKE	435	0.36	THAT’S	45,065	0.45	WILL	224,880	0.26
42	WHEN	433	0.36	ARE	45,022	0.45	THERE	218,168	0.25
43	HAD	428	0.36	AS	43,317	0.43	WE	201,669	0.23
44	THEY	428	0.36	DON’T	42,195	0.42	WOULD	196,313	0.22
45	WILL	421	0.35	THINK	41,103	0.41	IF	192,652	0.22
46	GET	412	0.34	JUST	40,082	0.40	MORE	187,359	0.21
47	KNOW	402	0.33	YES	39,613	0.39	UP	180,541	0.21
48	WOULD	378	0.31	LIKE	38,188	0.38	SO	172,429	0.20
49	OUT	360	0.30	ABOUT	36,842	0.36	WHEN	172,347	0.20
50	THERE	357	0.30	CAN	36,232	0.36	WHO	171,691	0.20

Immediately noticeable in this table is the high frequency of grammatical or functional items across all three corpora, a trend that is hardly surprising given the dominance of such words amongst most varieties of English (Quirk et al., 1985). One type of functional item that I wish to discuss in greater detail here is pronouns. My justification for this is two-fold. First, pronouns abound in the DFC, accounting for nine of the fifty most frequent words in the corpus, including the most frequent item, *I*, reaffirming Baron's (2000: 251) observation of heavy pronoun use as a characteristic feature of CMC (see Chapter Two). Second, although they are functional items, pronouns, like nouns more generally, do more than just refer to other, animate entities, but actually have great constitutive potential (Schiffrin, 2006: 103-104). When using pronouns, people not only signal their roles in interaction (i.e. as a speaker or addressee), but also construct their sense of location in time and space and, crucially here, their relationship to other people, places and things in the world (Pennycook, 1994; de Fina, Schiffrin and Bamberg, 2006: 4). Accordingly, closer examination of the kinds of pronouns used in the DFC might provide an (at least quantitative) indication as to how the forum contributors situate themselves (Barker and Galasiński, 2001: 74) within their discursive constructions of diabulimia.

The messages contained in the DFC exhibit an interesting tendency towards first person singular pronouns, particularly when compared to general spoken and written English. Consider, first, the singular subject pronoun *I*. This item is the most frequently-occurring word in the DFC, featuring 4,671 times and accounting for 3.89 per cent of the total words in the corpus. By comparison, this item is the third most frequent word in the BNC spoken and the nineteenth most frequent word in the BNC written, accounting for 2.44 per cent and 0.47 per cent of the total words in each corpus, respectively. Similarly, the related, contracted form *I'm* (short for 'I am'), ranks as the fortieth most frequent word in the DFC, but does not

appear among the top fifty in either the BNC spoken or written subcorpora. This trend is also observable in both the singular object pronoun *me* and the possessive form *my*, which rank, respectively, as the twenty-ninth and eleventh most frequently-occurring words in the DFC, yet do not appear among the top fifty words for either of the BNC sub-corpora.

The high frequency of first person singular pronouns in the DFC might suggest that the forum messages it contains are centred round the contributors' own, individual health-related experiences and understandings, and so discursively constructed from these subjective, lived perspectives (Wodak, 1981: 198). This pattern has been observed in existing studies of health-related communication, particularly first person illness narratives, in which first person singular forms are often used by narrators to locate themselves, subjectively, at the centre of their lived experiences of their condition (Charteris-Black and Seale, 2010: 63). Conversely, first person plural pronouns, that might be inclusive of other interlocutors, such as 'we', 'us' and the possessive form 'our', do not feature among the fifty most frequent items in the DFC. Had they occurred as frequently as first person singular forms, such words might have suggested a tendency for forum contributors to discursively construct diabulimia in this context in terms of their shared, rather than individual, experiences and understandings (Charteris-Black and Seale, 2010: 65).

The second type of pronoun in the DFC wordlist I consider here is second person pronouns, specifically the items *you* and *your*. The second person singular form *you* is ranked sixth in the DFC wordlist, occurring 2,096 times and accounting for 1.75 per cent of the total words in the corpus. Comparing this frequency information with the corresponding information for the same word in the BNC spoken and written subcorpora reveals some rather interesting patterns. The occurrence of *you* in the DFC is comparable to that in the BNC spoken, in

which it appears as the fifth most frequent item (one place higher than in the DFC), occurring 229,320 times and accounting for 2.27 per cent of the total tokens (compared to the slightly lower percentage figure of 1.75 in the DFC). The relative frequency figures for *you* across these two corpora are therefore fairly comparable. On the other hand, *you* occurs appreciably less often in the BNC written as compared to both its spoken counterpart and the DFC, where it is ranked twenty-ninth in the wordlist, occurring 329,966 times which, although is significantly higher than in either the DFC or BNC spoken, accounts for a comparatively meagre 0.38 per cent of all the words in this corpus. A related item in the DFC wordlist is the second person possessive pronoun *your*, which is ranked twenty-first in the corpus, occurs 823 times and accounts for 0.69 per cent of the total words in the corpus, but does not occur at all within the top fifty items in either the BNC spoken or written.

In terms of the frequency of second person pronouns at least, the DFC is therefore more comparable to spoken language than it is to written language (Yates, 1996), reflecting the generally interactive nature shared by both spoken language and CMC (Herring, 2001). The high frequencies of the second person forms *you* and *your* in the DFC are likely testament to the multi-party dynamic (Friginal, 2009: 110) of the forum interactions represented in the corpus, signalling, moreover, their crucial interpersonal component, where second person pronouns frequently refer to a second party directly involved in the interaction. One contributor, for example, writes:

Extract (1)
You can ask **your** doc to put **you** in contact with someone, or **you** could ask at **your** college. I strongly advise **you** to do this, it really can help. Good luck.'

As this example demonstrates, second person pronouns can function in advice- and support-giving passages, a communicative function long-observed to be characteristic of interaction within this context. The high frequencies of second person pronouns in the DFC might also signal the tendency for some forum contributors to construct their experiences of the world from the perspective of a hypothetical, general second party (Charteris-Black and Seale, 2010: 63), an in the extract below:

> **Extract (2)**
> if all **your** group is thin and **you** are not and **you** discover that by not taking **your** insulin **you** to can be thin what will the young mind do?no diet no exercise just dont take the shot for a few days and the pounds fall off.take the shots again and back comes the weight.

In such cases, it is possible that this hypothetical, general reference provides a useful means for disguising one's own health concerns in order to seek advice more subtly (Harvey, 2013: 86), a concern that is particularly salient for those disclosing delicate and potentially face-threatening topics, such as those relating to mental health, eating disorders, and so forth (Harvey and Brown, 2012). However, it is of course not possible to confidently make such an assertion about any particular contributor, or in relation to any specific message, based on the corpus data alone.

A similar communicative strategy might be at work in the use of the impersonal pronoun *it* (ranked ninth in the DFC with 1,798 occurrences), which, as research indicates, is often used in health-related disclosure because it allows the speaker or writer to avoid reference to human agency; as Charteris-Black and Seale (2010: 63) argue, '"it" is often used when the speaker wishes to speak 'objectively' or in such a way as to distance him or herself from a subject that experiences a particular illness', a representational strategy that these authors

refer to as ‘deictic distancing’ (2010: 62). In the context of these findings, and given the proliferation of personal pronouns in the DFC, it seems likely that some of the forum contributors have adopted such strategies, formulating their diabulimia-related concerns in quite general terms, perhaps in an attempt to distance themselves from potentially face-threatening propositions relating to diabulimia and other topics of discussion, though this would need to be substantiated with closer, more contextualised examination of these words in situ.

Appearing amongst the fifty most frequent words in the DFC we also find three third person pronouns: *her, she* and *they*. The word *her* ranks twenty-seventh, occurs 682 times, and accounts for 0.57 per cent of all the words in the corpus. Directly below it the item *she* ranks at twenty-eighth, occurring 666 times, accounting for 0.55 per cent of all the words in the corpus. Furthermore, the third person plural form *they* features in forty-fourth place, occurring 428 times and constituting 0.36 per cent of all the words in the corpus. Like other forms of asynchronous CMC, the forum posts contained in the DFC make less use of third person pronouns compared to written language (Biber, 1995). Indeed, the BNC written subcorpus exhibits a preference for third person forms, with as many as six third person pronouns featuring among its fifty most frequent items (*he, his, they, she, her, their*), more than in the top 50 words of both the DFC (three; *her, she, they*) and BNC spoken (two; *they, he*) combined.

Like full lexical nouns, third person pronouns are commonly used to index people *other than* those directly involved in the communicative exchange (Schiffrin, 2006: 104). Those third person pronouns that do occur in the DFC word list above reflect, in part, one of the central functions of online forum interactions, which typically involve the telling of stories and

narratives that likely involve others, including family members, friends, practitioners, and so forth (Greenhalgh and Hurwitz, 1999). However, generally speaking, the frequency of third person pronouns referring to absent others (*she, her, they*) is limited in quantity in the DFC as compared to the proliferation of first and even second person pronouns in this corpus, a trend that suggests, perhaps, a stronger focus in these messages on immediate interlocutors than on absent third parties (Biber and Conrad, 2009). This frequency information might therefore suggest a proclivity for the contributors of the forum messages to frequently construct, through discourse, their *own* experiences and understandings of diabulimia, more so, perhaps, than the experiences of others, although the presence of third person pronoun forms in the above table does suggest that such constructions are also likely to occur, albeit less frequently, in this context.

Alternatively, the high frequency third person pronouns in the DFC might function as substitutes for self-featuring problems and experiences; what Holmes, Offen and Waller (1997: 80) refer to as 'disguised presentations', a linguistic strategy employed by individuals who wish to disclose potentially face-threatening information (of which psychological distress and eating disorders are no exception (Pollock, 2007)), without fear of being stigmatised and negatively evaluated by their online peers (Harvey and Brown, 2012: 324). As Harvey (2013: 87) argues,

> [i]n avoiding the first person, use of which personalizes the writer's perspective […], [contributors] are potentially able to fictionalize their real and very personal predicaments, distancing themselves from their concerns by transferring them to a third-party[.] […] The indexical distance that such second and third person terms

> afford thus provides a means of preserving the self-image of the contributors, as well as ensuring them a sense of anonymity while discussing sensitive subjects.

It is, of course, possible that third person reference in the DFC actually reflects the genuine sharing of another's experiences, or even the seeking of advice on another's behalf. Therefore, I have no option but to treat the messages contained in the corpus at face value. Nonetheless, I remain aware of the potential for terms ostensibly referring to others to actually serve as a disguised form of self-presentation across the data.

That the two most frequently occurring second person pronouns in the DFC denote female actors (i.e. *her* and *she*), while the other second person pronoun in this list is gender-neutral (*they*), seems to be striking, particularly compared to both BNC subcorpora, in which the male pronoun *he* (and in the case of the BNC written also *his*) occurs more frequently than any female pronoun. The dominance of female pronouns in the DFC, particularly as compared against general language (as represented by both subcorpora of the BNC) provides evidence that female actors occur more frequently than male actors in the diabulimia-related stories and messages in this context.

Another feature of the DFC word list that I would like to consider briefly here is the high frequency of items marked for present tense, such as the auxiliary verb *is* (ranked tenth), *have* (ranked fourteenth) and, to a lesser extent, *are* (ranked twenty-fourth) and *I'm* (contracted from 'I am'; ranked fortieth). Such items might signal the tendency for the forum contributors to discursively formulate their health experiences, understandings and concerns as existing in the present, reflecting, according to Harvey and colleagues (2007: 774), the currency and relevance of the communicated health-related issues at the time of writing (or typing).

The foregoing examination of the most frequent words in the DFC word list, though rather descriptive and somewhat cursory in nature, has, nevertheless, revealed some interesting insights into the linguistic characteristics of the forum messages contained in this corpus. The proliferation of pronouns in table 2 attests the hybrid nature of internet forum interactions, which typically involve the disclosure of personal illness experiences and the telling of illness narratives, reflected, for instance, by the high frequencies of first and third person pronouns in this corpus. Yet, at the same time, the messages in the DFC would also appear to exhibit a strong interactive and interpersonal orientation, indicated by the high frequency of first and second person pronouns, an observation that is hardly surprising given that one of the primary motivations for participation in online fora is the exchange of advice and social support (White and Dorman, 2001). The foregoing examination has also revealed much about the general stylistic characteristics of the language in the DFC, highlighting significant overlap and differences between the language contained in this corpus and general spoken and written English, as represented by the BNC. Admittedly, such information is not particularly insightful in terms of the discourses on which individuals draw when communicating about diabulimia, though it does, nonetheless, provide a useful overview of the nature of the interactions in the corpus, as a hybrid of largely self-featuring messages which have narrative and advice -seeking and -giving functions. My now deeper understanding of these features, garnered through the examination of the frequency information presented above, will allow me to interpret the discursive constructions examined in subsequent chapters with these local, interactional-level functions in mind.

However, what this preliminary analysis has not done, and what it was not able to do based on word frequency information alone, was determine the extent to which these linguistic characteristics could account for the *distinctness* of the corpus data (McCarthy and Handford,

2004: 174). Due to this, and its generally lacking content words (though there are a couple of exceptions to this), raw frequency information therefore fails, in this case, to capture fully the themes and objects of discursive construction within the diabulimia-related messages featured in the DFC. As such, although frequent items such as *insulin* and *weight* hint at promising points for analytical departure, the usefulness of this wordlist for identifying lexical items for exploring such themes in the corpus is, generally speaking, rather limited. Any attempt to closely and meaningfully examine the entire 7,141-strong wordlist would be time-consuming and impractical at best. However, the corpus procedure of keywords is capable of generating a more manageable set of statistically salient lexical items that are likely to indicate the most characteristic themes emergent from the diabulimia-related messages contained in the corpus.

4.2. Keyword analysis

Introduced in the previous chapter, keywords are those words that occur with either a statistically significantly higher (positive keywords) or lower (negative keywords) frequency in the target corpus (in this case, the DFC) compared to the reference corpus, which usually represents a comparable "norm" or "standard" for the kind of language under investigation (Scott, 1997). Keyword identification constitutes an important analytical step in the present study, offering a powerful but convenient means for identifying specific lexical items which relate to, and so provide a lexical entry point through which to explore analytically, the themes or "objects" of discursive construction in the data (Baker, 2005). Since keyword generation is essentially a contrastive endeavour, involving the comparison of one dataset against another, the reference (or comparator) corpus must be selected carefully, since this decision will ultimately shape the number and nature of the keywords generated by the

corpus software (Baker, 2006: 43). In the present study I generated a keyword list for the DFC by comparing it with the 100 million-word BNC, which represents spoken (10 per cent) and written (90 per cent) general British English usage across a variety of genres during the late 20th century. Written genres represented in the BNC include newspaper articles, periodicals, journals, popular fiction and academic books, while spoken genres include casual conversations, meeting, lectures, debates and classroom discussions (Leech, Rayson and Wilson, 2001).

An important consideration regarding the choice of reference corpus concerns the type of language that it represents. It is a view long held in corpus linguistic literature that in order to generate keywords that suggest *characteristic* features of the corpus under examination, those keywords should be generated by comparing the target corpus with a comparable reference corpus, in other words to compare like with like (Scott and Tribble, 2006). As Harvey (2013: 90-91) argues, comparing a corpus of spoken medical interviews with a corpus of romantic novels will not necessarily produce a list of keywords that truly reflects the salient linguistic features of the medical interviews under examination (see also: Adolphs, 2006). Yet, at the same time, comparing a corpus against another that is very similar in terms of the texts it represents risks overlooking significant similarities. For example, in the case of the present study, the salience of a word like 'disease' in the DFC might be overlooked as a keyword if I was to compare this corpus against one containing health-related texts. According to this view, the reference corpus most ideally suited for comparison with the DFC would therefore likely be one which represents the language of internet forum interactions, but not necessarily interactions related to health and illness. However, the selection of a reference corpus is, like so many other aspects of corpus linguistic research, is inevitably influenced by practical considerations (Baker, 2006: 43). To my knowledge, there is no publicly available general

corpus of internet forum communication in existence at the time of writing. Moreover, to design and construct a corpus that is representative of the scale and diversity of the language produced in this communicative domain, let alone just for the purpose of present study, would be quite an undertaking. It was therefore more practical to use the ready-made and publicly available BNC.

Another important consideration regarding the selection of the reference corpus relates to size, for the size of the reference corpus used to generate a keyword list will impact on the number of keywords generated. A reference corpus that is five times the size of the target corpus is likely to produce a larger number of keywords than would a smaller reference corpus that is, say, just three times the size of the corpus under analysis (Berber Sardinha, 2000). As such, it is common practice to compare the target corpus with a reference corpus that is much larger in size (Hunston, 2002: 68). According to this principal, the 100 million-word BNC provides a suitably large reference corpus with which to compare the 119,054-word DFC, and should easily generate a sufficient number of keywords for analysis.

At this point it is also worthwhile acknowledging the findings reported in more recent research that proposes the statistical computational measure of keywords, such as that offered by *WordSmith Tools*, to be more robust than the foregoing discussion might suggest. In an attempt to find a "bad" reference corpus, Scott (2009) undertook a series of interesting studies in which he generated keywords comparing seemingly incompatible corpora for the purposes of generating keywords. For instance, Scott compared a 615-word practitioner-patient interview with a 700,000-word reference corpus containing all of the plays written by William Shakespeare. Despite the significant stylistic and genre differences between these and the other corpora that he compared, Scott reported the utility of computational keyword

measures to consistently produce a manageable number of keywords which provided promising avenues for closer analysis, regardless of the choice of reference corpus. Therefore, while Scott's experiments do not discount entirely the influence that the choice of reference corpus has on the nature and number of the keywords generated, they do propose the power of keywords to reliably indicate the most characteristic propositional content of a corpus, regardless of the extent to which the reference corpus might be deemed unsuitable for comparison. Whatever the significance of reference corpus suitability may be, given the hybrid, part-written part-spoken nature of electronic communication (Baron, 2000), demonstrated by the frequency analysis of the DFC presented earlier in this chapter, as a corpus that comprises both spoken and written linguistic varieties, the BNC provides a suitable comparison corpus for the purpose of generating keywords from the DFC.

The keywords from the DFC were generated using the log-likelihood statistical test (Dunning, 1993). This confidence-based measure compares the observed frequency of each lexical item in the target corpus (the DFC) against its equivalent frequency in the reference corpus (the BNC). If there is a substantial difference between the actual and expected frequencies, be that occurring significantly higher or lower, then the frequency of that word is judged, by the computer, to be in some way unusual (Barnbrook, Mason and Krishnamurthy, 2013). If this difference is substantial, then the relationship between the two words is judged to be statistically significant and thus worthy of closer analytical attention.

How substantial the difference between the two frequency figures has to be to be judged statistically significant is known as the p (probability) value. The p value indicates the amount of confidence the researcher can have that a word has not been judged to be "key" simply by chance, with smaller p values affording greater confidence that the keywords have

not been judged as "key" due to chance alone (Baker, 2006: 125). For calculating keywords in the present study a p value of <0.000001 (the default value in *Wordsmith Tools*) was used, which indicates the chance that a keyword is generated erroneously in the present study to be less than one in one million. In disciplines such as the social sciences, a p value of <0.05 (which indicates a confidence of 95 per cent that the result has not arisen by chance) is considered to be the base mark of acceptability, with keywords generated using a p value of less than 0.05 generally considered to be worthy of closer analytical attention (McEnery et al., 2006). Although the comparatively lower p value threshold used in the present study means that I can have greater confidence in reliability of the keyword output, it also produces fewer keywords than if I were to use a higher p value of, for example, <0.05. However, Scott (2008) argues the notion of risk to be less important than selectivity when generating a keyword list, and that there is greater value in having a smaller list of keywords in which the analyst can have greater confidence.

Following the above considerations, I used *WordSmith Tools* to generate keywords from the DFC by comparing it against the BNC (spoken and written), using the log-likelihood procedure with a p value of <0.000001. This produced a total of 733 keywords, far too many to examine in detail. I therefore isolated the 200 most "key" keywords for analysis (an arbitrary cut off). Focusing on those keywords with the highest keyness value, reflecting, in theory, those words that best characterise the language in the DFC, should direct my attention to those potential discourses that are drawn upon most characteristically by the contributors to the forum messages contained in the corpus (Baker, 2005: 27). The top 200 keywords are displayed in table 3, ranked in order of keyness. A digital copy of the top 500 keywords (the preset limit in *WordSmith Tools*) can be found in the CD-ROM enclosed in Appendix A. A printed version of this list is also provided in Appendix C.

Table 3: Top 200 keywords in the DFC when compared against the BNC, ranked in order of keyness

Rank	Keyword	Freq.	%	Keyness
1	I	4,671	3.89	8712.87
2	INSULIN	787	0.66	8420.27
3	MY	1,402	1.17	3429.28
4	WEIGHT	559	0.47	3322.35
5	DIABETES	328	0.27	3159.70
6	DIABULIMIA	169	0.14	2271.57
7	EATING	316	0.26	1934.37
8	YOU	2,096	1.75	1881.66
9	CARBS	112	0.09	1385.75
10	YOUR	823	0.69	1368.26
11	[NAME]	105	0.09	1320.89
12	LANTUS	84	0.07	1129.01
13	AM	347	0.29	1034.91
14	I'M	453	0.38	1002.59
15	IM	122	0.10	976.97
16	DKA	72	0.06	967.71
17	CARB	86	0.07	967.42
18	DISORDER	140	0.12	914.74
19	DIABETIC	117	0.10	910.91
20	ENDO	75	0.06	895.63
21	ME	629	0.52	799.48
22	EAT	187	0.16	786.71
23	BG	72	0.06	779.80
24	HELP	330	0.27	747.20
25	LOSE	161	0.13	674.96
26	HI	104	0.09	645.47
27	SUGARS	68	0.06	642.97
28	HAVE	1,197	1.00	596.26
29	JUST	531	0.44	580.51
30	REALLY	312	0.26	565.83
31	COMPLICATIONS	83	0.07	560.93
32	BASAL	75	0.06	549.19
33	[NAME]	41	0.03	541.60
34	DIABETICS	63	0.05	527.31
35	DONT	56	0.05	521.88
36	GAIN	127	0.11	521.81
37	DIAGNOSED	72	0.06	484.66
38	IVE	46	0.04	460.62

39	GET	412	0.34	458.01
40	SO	714	0.59	450.33
41	BOLUS	43	0.04	430.88
42	CONTROL	217	0.18	426.32
43	FEEL	200	0.17	413.40
44	PUMP	73	0.06	409.94
45	HEALTHY	95	0.08	408.46
46	GLUCOSE	60	0.05	400.23
47	MYSELF	140	0.12	385.11
48	TYPE	168	0.14	384.89
49	IT	1,798	1.50	382.82
50	SUGAR	92	0.08	372.22
51	WEBSITE	27	0.02	362.88
52	BLOOD	127	0.11	359.66
53	TAKING	173	0.14	354.90
54	DIABULEMIA	26	0.02	349.44
55	MOM	43	0.04	337.35
56	HUMALOG	25	0.02	336.00
57	URL	24	0.02	322.56
58	DIET	84	0.07	313.56
59	KNOW	402	0.33	313.03
60	DO	512	0.43	310.10
61	FAT	87	0.07	309.41
62	COM	41	0.03	301.46
63	NPH	23	0.02	300.81
64	DON'T	331	0.28	297.02
65	DOING	173	0.14	288.73
66	BODY	161	0.13	284.11
67	CANT	33	0.03	281.43
68	LUCK	70	0.06	280.96
69	LOWS	30	0.02	280.49
70	I'VE	184	0.15	280.44
71	SKIPPING	36	0.03	279.53
72	THINK	321	0.27	278.62
73	DISORDERS	48	0.04	273.37
74	DIABULIMIC	20	0.02	268.80
75	BULIMIA	31	0.03	264.54
76	FOOD	136	0.11	259.06
77	GOOD	291	0.24	256.94
78	LOL	23	0.02	256.36
79	BRITTLE	39	0.03	253.70
80	INJECTIONS	37	0.03	252.31
81	LIKE	435	0.36	252.25
82	DOCTOR	98	0.08	250.56

83	BUT	923	0.77	248.78
84	COUNSELING	19	0.02	242.16
85	CAN	538	0.45	241.55
86	KEEP	154	0.13	238.94
87	ABOUT	508	0.42	236.04
88	COUNSELOR	18	0.01	234.09
89	LOW	132	0.11	233.77
90	HOPE	122	0.10	231.52
91	KETONES	19	0.02	227.82
92	FORUM	51	0.04	225.58
93	HER	682	0.57	218.31
94	IT'S	346	0.29	213.07
95	CALORIES	39	0.03	210.49
96	NOT	882	0.73	209.66
97	DOC	33	0.03	208.87
98	IF	578	0.48	208.59
99	THAT	1,805	1.50	208.10
100	THING	162	0.13	206.88
101	WHAT	517	0.43	203.92
102	INTAKE	42	0.03	203.03
103	YOURSELF	91	0.08	202.89
104	ALOT	21	0.02	199.03
105	BAD	105	0.09	197.84
106	THATS	23	0.02	195.60
107	GOING	229	0.19	194.79
108	SOMEONE	110	0.09	194.21
109	THIS	901	0.75	193.44
110	THANKS	69	0.06	191.62
111	DWED	14	0.01	188.16
112	MEDS	14	0.01	188.16
113	LOT	140	0.12	186.29
114	HOW	285	0.24	184.75
115	LBS	26	0.02	184.41
116	NEED	204	0.17	184.37
117	TAKE	237	0.20	184.10
118	LOSING	56	0.05	182.76
119	BETTER	156	0.13	182.43
120	EXERCISE	77	0.06	175.68
121	CGMS	13	0.01	174.72
122	HYPO	20	0.02	173.12
123	MUCH	273	0.23	172.80
124	GETTING	112	0.09	171.66
125	[NAME]	16	0.01	169.36
126	HARD	123	0.10	168.60

127	TOO	222	0.18	168.05
128	RETINOPATHY	19	0.02	166.73
129	SKINNY	26	0.02	166.24
130	BC	35	0.03	166.15
131	SHE	666	0.55	166.01
132	INJECT	25	0.02	165.96
133	POUNDS	87	0.07	165.95
134	ETC	70	0.06	165.76
135	THIN	60	0.05	163.64
136	UNDERSTAND	95	0.08	162.53
137	LEVEMIR	12	<0.01	161.28
138	DX'D	12	<0.01	161.28
139	CARBING	12	<0.01	161.28
140	[FORUM NAME]	12	<0.01	161.28
141	TO	3,869	3.22	160.62
142	CARE	122	0.10	159.48
143	BGL	14	0.01	157.39
144	SORRY	77	0.06	156.56
145	TRY	110	0.09	155.73
146	LOSS	83	0.07	155.61
147	ANYONE	89	0.07	153.92
148	OK	41	0.03	153.71
149	STARTED	98	0.08	153.47
150	PLEASE	85	0.07	152.18
151	GLAD	50	0.04	149.82
152	DL	18	0.01	149.04
153	GASTROPARESIS	13	0.01	148.84
154	BGL'S	11	<0.01	147.84
155	HYPOS	11	<0.01	147.84
156	HTML	11	<0.01	147.84
157	IS	1,602	1.33	140.65
158	ANOREXIA	23	0.02	140.22
159	MAYBE	69	0.06	135.84
160	NEUROPATHY	18	0.01	133.98
161	YEARS	247	0.21	133.76
162	ORG	13	0.01	132.60
163	WANT	180	0.15	131.95
164	RECOVERY	46	0.04	129.64
165	FOODS	37	0.03	129.46
166	SOUNDS	54	0.04	129.12
167	BINGE	18	0.01	128.10
168	MDI	11	<0.01	127.98
169	OVERWEIGHT	22	0.02	126.21
170	SCARY	19	0.02	125.94

171	DX	15	0.01	125.81
172	MEALS	38	0.03	125.52
173	ANYMORE	20	0.02	125.04
174	NOW	327	0.27	124.39
175	BG'S	10	<0.01	123.59
176	HIGH	152	0.13	122.97
177	GAINING	30	0.02	122.31
178	[NAME]	9	<0.01	120.96
179	REGLAN	9	<0.01	120.96
180	BASALS	9	<0.01	120.96
181	DOCTORS	47	0.04	120.66
182	SHE'S	84	0.07	119.67
183	THERAPY	34	0.03	119.46
184	SKIP	23	0.02	117.72
185	STRUGGLING	33	0.03	117.37
186	YRS	18	0.01	114.75
187	GAINED	42	0.03	114.56
188	PURGING	14	0.01	111.92
189	WHEN	433	0.36	111.52
190	WISH	69	0.06	111.38
191	LOST	89	0.07	110.87
192	GOOGLE	9	<0.01	110.53
193	HEALTH	104	0.09	110.06
194	WELCOME	51	0.04	108.24
195	SURE	99	0.08	107.86
196	WOW	20	0.02	107.83
197	VERY	283	0.24	107.19
198	ATE	30	0.02	106.68
199	DAY	185	0.15	105.50
200	BOLUSES	9	<0.01	104.92

Scott and Tribble (2006) observe that keyword lists typically produce three types of word: (i) proper nouns, (ii) keywords that humans would intuitively recognise as key and indicate the "aboutness" of the text(s) in the corpus, and (iii) high-frequency functional items more indicative of style than of aboutness (although that does not mean to say that such items should necessarily be precluded from a discourse analysis, as functional items can also provide promising avenues for discourse identification (McEnery, 2005)). Scott's observation

has indeed been borne out in the DFC keyword list above, with lexical items indicative of "aboutness", high frequency functional items and proper nouns (replaced with [NAME] for ethical purposes) all observable in the above table. Keywords can also provide an indication of the "aboutness" of the language contained in a corpus, elucidating the defining linguistic and thematic characteristics of the texts it contains. The next step in the analysis involves grouping these keywords into such themes which are then explored through their corresponding keywords in the forthcoming analytical chapters.

4.4. Thematic keyword categorisation

In order to establish firm themes, it was necessary to go beyond the horizontal and somewhat reductive output in table 3 and examine each keyword in its more expansive and deeply contextualised surroundings through the prism of concordance. Based on these analytical readings, each keyword was assigned to the thematic group(s) to which it corresponds across the forum the messages. In order to capture the fullest possible range of themes to which each keyword contributed, a large number of concordance lines were examined for each item. For low-frequency keywords it was possible to examine every concordance line and so every instance of its use across the corpus. However, many of the keywords occur with high frequency, for example the keyword *insulin*, which occurs 787 times. In such cases I adopted Sinclair's (2003) well-established procedure of examining the patterns evident in 30 randomly-selected concordance lines, assigning the keyword to one or more emergent thematic categories, and repeated this process until new patterns ceased to emerge. This procedure of manual keyword-grouping was explored in greater detail in the previous chapter. The themes into which the keywords are grouped are presented in table 4, below.

Table 4: Thematic categories of the keywords in the DFC

Thematic categories	Corresponding keywords (in order of keyness)
Diabulimia	*diabulimia, disorder*, diabulemia, disorders*, diabulimic*
Insulin	*insulin, lantus, basal, bolus, pump, taking, humalog, nph, skipping, injections, low, intake, meds, take, inject, levemir, basals, skip, boluses*
Diabetes	*diabetes, dka, diabetic, bg, sugars, complications, diabetics, diagnosed, control*, glucose, type, sugar, blood, lows, brittle, low, ketones, dwed*, cgms, hypo, retinopathy, bc, dx'd, bgl, dl, bgl's, hypos, neuropathy, dx, bg's, high*
Body, weight and eating	*weight, eating, carbs, carb, eat, lose, gain, control*, diet, fat, body, food, calories, intake, lbs, losing, exercise, skinny, pounds, thin, carbing, loss, foods, binge, overweight, meals, gaining, gained, lost*
Social actors	*endo, mom, doctor, counselling, counsellor, doc, doctors, therapy, docs*
Recovery	*healthy, hope, recovery, health*
Other conditions	*disorder*, disorders*, bulimia, dwed*, anorexia*

* asterisk symbol denotes that a keyword is 'split' and corresponds to more than one theme

Despite their appearing clearly defined in the above table, these themes do, of course, overlap in parts. The expression diabulimia-related keywords sounds, admittedly, like somewhat of a misnomer, given that the corpus consists entirely of diabulimia-related internet forum threads

and so, one might argue, *all* of the keywords relate, to a greater and lesser extent, to this complex and broad topic. The interconnectedness and fuzziness of these themes is reflected by the split words, described so because they frequently crystallize around more than one theme in the corpus. While the necessarily interpretive nature of establishing such fuzzy categories presents somewhat of an issue respecting the replicability of this part of my analysis (Baker, 2010: 107-108), I would echo Mahlberg and McIntyre's (2011: 212/214) contention that fuzzy boundaries are vital for appreciating that 'keywords have a number of different meanings that contribute to the same category' and that it is therefore 'essential not to lose sight of the range of meanings of individual keywords in the effort to categorize neatly.'

The process of keyword categorisation described in this section constitutes an important methodological step in the present study, and one which, as the foregoing discussion attests, required me to make a series of interpretive decisions which have undoubtedly shaped the course of my analysis. Discourse identification is a necessarily subjective process which requires a degree of cultural knowledge and analytical sensitivity that is beyond the reaches of a computer. Given its interpretive nature, I have endeavoured to describe this process in as detailed and transparent a way as possible. Parker (1992: 125-126) suggests that the operation of discourse categories, such as those in table 4, might be validated by sharing the results of this interpretive analytical step with others, so that individual readings of the keywords can confirmed or refuted, thereby lending a little more robustness to the process. Following this advice, the top 200 keywords (resolved into groups here) are presented to readers in table 3. Furthermore, although it is not possible for me to make the corpus publicly available due to ethical restrictions, this data was shared with colleagues whose ideas and analytical interpretations helped to determine and shape these thematic categories. In this way, the

categories in table 4, while undoubtedly reflective of my own reading of the corpus data, are neither objective nor entirely subjective in their conception (see also: Baker, 2010: 107-108). The themes displayed in table 4 provide a data-led summation of the most salient themes, as I interpret them, in the forum messages contained in the DFC. As stated previously, these themes and their corresponding keywords provide a series of thematic and lexical entry points through which to explore the discourses surrounding diabulimia in the forthcoming analytical chapters. It would not be possible, within the confines of this thesis alone, to provide an exhaustive account of the discourses emergent from the DFC from each of the thematic and lexical perspectives proposed by the categories presented in table 4. Accordingly, the analysis in the forthcoming chapters is necessarily selective, exploring the discourses surrounding diabulimia from the thematic and lexical perspectives of diabulimia, insulin and diabetes.

My pursuit of the theme of diabulimia in the corpus is only logical based on the overarching aims of this thesis, and so warrants no further justification. The themes of insulin and diabetes were selected for closer analysis on the basis of both their statistical salience in the corpus (the lexical instantiations of these themes represent some of the most key, and so most statistically salient, lexical items in the data), as well as their significance to the fundamental experience of diabulimia, as a condition that affects those with pre-existing diabetes and essentially involves the reduction or omission of recommended insulin dosage (see discussion in Chapter 1). I emphasise at this point that when examining the keywords *insulin* and *diabetes* (in Chapters 6 and 7, respectively), my analytical focus will be dedicated to identifying and interpreting the discourses surrounding these words in terms of how they contribute to the broader construction of diabulimia in the data. Thus, while my findings will inevitably reveal insight into the discursive construction of insulin and diabetes in the forum

messages, it is in how these themes relate to diabulimia – the focus of this thesis – that I am most interested. Collectively, these various thematic and lexical perspectives should therefore facilitate a rich and eclectic, almost kaleidoscopic, qualitative interrogation of the discourses on which people draw to construct diabulimia in their forum interactions.

4.5. Chapter summary

This initial analytical chapter has provided an inductive, quantitative survey of the DFC using the quantitative corpus measures of frequency and then keywords. The analysis presented in this chapter has afforded what Mahlberg (2010: 298) describes as a corpus linguistic 'starting point' in the present study, with the corpus measures of frequency and keywords not only yielding interesting quantitative insights into the textual properties of the forum messages, but also pointing up a series of themes and corresponding lexical entry points through which to examine the discursive construction of diabulimia in the data. Three of these themes – diabulimia, insulin and diabetes – form the basis of the corpus analysis in the forthcoming chapters.

5. Diabulimia, proximity, agency and medicalisation

5.1. Introduction

This chapter explores the first theme identified through keyword categorisation in the previous chapter, diabulimia, by examining how the diabulimia-related keywords, namely *diabulimia* and *diabulimic*, are used and lexically framed in the forum messages contained in the corpus. Inspecting these keywords within their more expansive textual contexts using the qualitative corpus techniques of collocation and concordance, the ensuing analysis identifies discourses of proximity, agency and medicalisation to be particularly prominent in the forum messages. The analysis in this chapter is divided into the three sections which reflect these thematic trends.

5.2. Diabulimia-related keywords

In the previous chapter I identified a select number of keywords that I interpreted to refer explicitly, and so to relate quite precisely, to the topic of diabulimia. These keywords, reproduced in table 5 below, afford promising lexical entry points through which to examine the discursive construction of diabulimia in the DFC, and so it is on the discourses signalled by and surrounding these keywords that the analysis in this chapter is focused.

Table 5: Diabulimia-related keywords in the DFC ranked in order of keyness

	Word	Frequency	%	Keyness
1	diabulimia	169	0.14	2271.57
2	disorder	140	0.12	914.74
3	diabulemia	26	0.02	349.44
4	disorders	48	0.04	273.37
5	diabulimic	20	0.02	268.80

The frequency and saliency of the terms relating precisely to diabulimia (*diabulimia*, *diabulemia*, *diabulimic*; ranked respectively at positions #1, #3 and #5 in the above table) is to be expected, given that these items all satisfy the search term *diabu** used to sample the forum threads for corpus inclusion. The most frequent and most "key" lexical item used to signify diabulimia in the DFC is the word *diabulimia* itself. This lexical item features amongst the most salient words in the corpus, ranking sixth in the list of keywords presented in the previous chapter. Its spelling variant, the less frequent *diabulemia*, ranked third in the above table, reflects not only the orthographic inconsistency that is characteristic of CMC (Barton and Lee, 2013), but possibly also the non-official status of this disease nomenclature (Sharma, 2013). In fact, examining the DFC word frequency list in its entirety, a plethora of other, less frequent alternative spellings for this term emerge, including: *diabulima* (n= 2), *diabullemia* (n= 2), *diabelimia* (n= 1), *diabulaemia* (n= 1), *diabullimia* (n= 1), *dibulemia* (n= 1) and *dibulimia* (n= 1). Diabulimia is also lexicalised through the adjective *diabulimic*, though the comparatively lower frequency of this item suggests that this health phenomenon is more likely to be lexicalised as a noun than as an adjective across the forum messages. This adjectival form also exhibited a range of orthographic alternatives throughout the corpus, including: *diabulemic* (n= 3), *diabulemics* (n= 1) and *dibulemics* (n= 1). Taking spelling variation into account, the noun *diabulimia* occurs 204 times in the DFC, whereas the combined spelling variants of its adjectival equivalent, *diabulimic*, occur on a comparatively

fewer 25 occasions across the corpus. These relative frequencies accord with the observation made by researchers such as Warner (1976) that people living in Western cultures are more likely to lexicalise illnesses and other health phenomena as nouns than as adjectives.

The two other keywords used in direct reference to diabulimia in the DFC are *disorder* and *disordered*. However, of the 193 occurrences of the lemma DISORDER in the DFC, the overwhelming majority (n= 173; 89.63 per cent) occur as part of the formulation 'eating + disorder', with a further two occurrences featuring as part of the formulation 'disordered + eating'. The majority of the uses of these eating disorder formulations are rather vague in reference and do not explicitly refer to any particular condition in the forum messages. Therefore, owing to their high frequency and salience in the corpus, and their precise lexical relation to diabulimia, the analysis in this chapter focuses primarily on the keywords *diabulimia* and *diabulimic*, including their spelling variants outlined above. Although the keywords *disorder* and *disorders* are not examined to the same extent, they are not precluded from the analysis entirely, but are instead considered when collocating alongside the specific diabulimia-related keywords mentioned above, as well as later on in the analysis. Of course, these keywords will not indicate every single instance in which diabulimia is discursively constructed throughout the entire corpus. However, their generally high frequencies, keyness and precise lexical relation to this condition suggest that the words *diabulimia* and *diabulimic* are likely to provide rich and reliable points of lexical departure for exploring the discourses on which the forum contributors draw when discursively constructing this health phenomenon.

Despite the readiness with which the contributors appear to use the terms *diabulimia* and, to a lesser extent, *diabulimic* in their messages, it should be borne in mind that these terms do not

constitute medically legitimate terminology and that the ascription of experiences and behaviours to *diabulimia* or description of such experiences as *diabulimic* here is unlikely to have followed any medical diagnosis. Due to this, the labels *diabulimia* and *diabulimic* (including their spelling variants) will not necessarily encapsulate the same set of experiences or behaviours on each occasion of their use across the forum messages. This feature of the corpus data does not present an obstacle with regard to the present study, since its aims are not diagnostic or to determine the clinical validity of the experiences construed as disordered or not. Whatever the case may be, it seems, from initial inspection of word frequency and keyword output at least, that these terms provide a useful interactional resource for the forum contributors, affording them the means for making sense of and communicating about their own and others' experiences and understandings of this health phenomenon.

5.3. Collocates of *diabulimia* and *diabulimic*

To examine how diabulimia is discursively constructed in the DFC, it is necessary for the analysis to explore the diabulimia-related keywords displayed in table 5 in their more expansive textual surroundings, namely through the more qualitative corpus measures of collocation and concordance. Introduced in Chapter Three, collocation refers to the co-occurrence of two words (Hunston, 2002: 68). By examining the frequent collocates of the diabulimia-related keywords, my analysis will get to grips with the sorts of associative meanings that those keywords accrue across the forum messages in the corpus (Baker, 2006: 96), and so shed light on the broader discourses that they signal (Baker, 2005: 27-28).

As a brief reminder, collocates are generated computationally through *WordSmith Tools* using the log-likelihood (LL) algorithm, which indicates the level of confidence that the collocational pairings generated by the computer are significant and have not arisen simply due to chance (Barnbrook, Mason and Krishnamurthy, 2013). Collocates were generated using a span of five words either side of the node. Imposing a minimum frequency threshold proved a little more challenging, given the substantial differences between the frequencies of the diabulimia-related keywords under examination. For generating the collocates of *diabulimia*, a minimum frequency threshold of $f \geq 5$ was stipulated (default in *WordSmith Tools*), which meant that for a word to be flagged as a collocate by the corpus software it had to occur within the span surrounding the node (in this case five words either side of it) on five or more occasions across the corpus. However, a slightly reduced minimum frequency threshold of $f \geq 3$ was used to generate collocates for *diabulimic*. This reduced frequency threshold was low enough to compensate for the comparatively lower frequency of this keyword in the corpus so as to produce a sufficient number of collocates for analysis (Gabrielatos and Baker, 2008: 12). To provide more detailed collocational profiles of these keywords, their left- and right- sided collocates were calculated separately (Harvey, 2012).

For the purposes of this and future collocation and concordance analyses, the spellings of *diabulimia* and *diabulimic* were standardised across the corpus. It was not my wish to impose a particular orthographic representation of diabulimia onto the forum messages contained in the corpus. However, this measure was deemed necessary to ensure that the analysis captured the fullest possible range of discourses indicated by and surrounding these terms in the data. The preferred spellings *diabulimia* and *diabulimic* were selected on the basis of both their substantially higher frequencies in the corpus and their consistent use in existing research on this topic. The revised frequencies of *diabulimia* and *diabulimic* are 205 and 25, respectively.

The collocation procedure yielded a total of 37 left-sided and 38 right-sided collocates for *diabulimia* and a total of 8 left-sided and 8 right-sided collocates for *diabulimic*. Due to its comparatively lower frequency in the corpus, even with the reduced frequency threshold, the keyword *diabulimic* yielded far fewer left- and right- sided collocates (both n= 8) than *diabulimia* (n= 36 and 37, respectively). The sixteen frequent collocates of *diabulimic* displayed in table 7 nonetheless provide a sufficient number of items for analysis. In the interest of space, I imposed a cut-off point of the top 20 left- and right- collocates of *diabulimia*, ranked by LL score. The full list of collocates can be found in the CD-ROM enclosed in Appendix A.

Table 6: Left- and right- sided collocates of *diabulimia*, freq. ≥5, ranked by LL score

	Left-sided collocates			**Right-sided collocates**		
	Word	**Freq.**	**LL**	**Word**	**Freq.**	**LL**
1	with	28	112.17	I	49	105.47
2	from	17	82.87	is	32	103.87
3	suffered	9	79.25	and	37	80.56
4	about	18	76.97	a	29	64.79
5	the	34	70.86	to	32	53.75
6	of	26	67.07	it	22	50.82
7	have	21	62.06	have	17	43.43
8	had	14	57.43	but	14	37.25
9	I	36	56.84	for	15	34.24
10	called	7	50.68	not	13	33.86
11	struggled	5	45.63	of	17	30.72
12	heard	5	33.56	has	8	29.31
13	years	8	32.44	years	7	26.56
14	to	25	31.60	please	5	26.08
15	what	10	30.88	as	10	25.12
16	who	7	27.29	my	13	23.42
17	my	14	27.01	I’m	8	23.27
18	as	10	25.12	was	11	23.18
19	has	7	23.85	in	12	22.13
20	for	12	22.66	type	5	19.40

Table 7: Left- and right- sided collocates of *diabulimic*, freq. ≥3, ranked by LL score

	Left-sided collocates			Right-sided collocates		
	Word	**Freq.**	**LL**	**Word**	**Freq.**	**LL**
1	a	10	46.40	for	9	52.07
2	am	5	34.55	years	5	37.95
3	I	10	34.49	and	9	34.30
4	that	5	18.44	I	7	18.46
5	not	4	18.35	now	3	17.76
6	been	3	18.17	they	3	16.17
7	know	3	16.54	and	3	11.13
8	have	3	10.24	to	3	04.11

As can be observed in the above tables, although the most frequently-occurring collocates are, by and large, grammatical, the LL measure yielded a mixture of lexical and grammatical collocates for each keyword. The plethora of personal pronouns collocating to the left and right of both *diabulimia* and *diabulimic*, including *I*, which collocates frequently both to the left and right of both keywords, provides yet further evidence that the contributors of the messages contained in the corpus discursively construct their experiences and understandings of diabulimia from their own subjective perspectives (Harvey, 2013: 174-175). As with all corpus procedures, all of the output generated is not necessarily relevant to the current analysis. However, the above tables do contain a number of grammatical and lexical collocates for both of these keywords that might be suggestive of particular discourses and ways of constructing diabulimia. Specifically, the analysis presented in the remainder of this chapter will explore what I interpret to be discourses of proximity, agency and medicalisation used to construct diabulimia in the forum messages contained in the corpus.

5.4. Discourses of proximity

The first part of this analysis will focus on the tendency for the contributors to construct diabulimia through discourses of proximity, that is, as something that they can either align themselves with or distance themselves from. Examining the ways that individuals discursively situate themselves in relation to illnesses is useful because it can reveal how those individuals perceive their role in the development and/or management of the health phenomenon in question (Estroff et al., 1991: 339). Although the keywords *diabulimia* and *diabulimic* share the same lexical root, they can be distinguished in terms of their discrete lexicogrammatical characteristics, which afford distinctive ways of discursively constructing the self in relation to the condition (Fleischman, 1999: 9). Broadly speaking, the keywords *diabulimia* and *diabulimic* encode two essential means of representing experience: respectively, those of 'having' diabulimia and 'being' diabulimic (Fromm, 1979). These distinct subject positions, respectively of being separated from and aligned with diabulimia, will be considered in greater detail now.

Distancing constructions

Constructions of diabulimia as a discrete entity that is separable from the person experiencing it tend to occur most frequently in formulations containing the noun *diabulimia*, as opposed to its adjectival equivalent, *diabulimic*. In order to explicate the distancing constructions of which this keyword is part, the analysis in this section will follow Harvey's (2012) recommendation and explore how *diabulimia* is lexically framed in the corpus by focusing on

its left-sided collocates. Table 8 below displays a positional breakdown of the left-sided collocates of *diabulimia* in the corpus.

Table 8: Positional breakdown of the left-sided collocates of *diabulimia*, five positions to the left of the node

	Collocate	**Freq.**	**LL**	**L5**	**L4**	**L3**	**L2**	**L1**
1	with	28	112.17	0	1	2	1	24
2	from	17	82.87	0	0	1	2	14
3	suffered	9	79.25	0	1	0	8	0
4	about	18	76.97	0	5	0	1	12
5	the	34	70.86	5	7	6	6	10
6	of	26	67.07	2	2	5	2	15
7	have	21	62.06	7	4	3	4	3
8	had	14	57.43	1	2	2	1	8
9	I	36	56.84	8	5	15	8	0
10	called	7	50.68	0	0	0	0	7
11	struggled	5	45.63	0	2	0	3	0
12	heard	5	33.56	0	2	1	2	0
13	years	8	32.44	2	3	1	0	2
14	to	25	31.60	4	4	8	7	2
15	what	10	30.88	1	5	0	2	2
16	who	7	27.29	0	2	2	3	0
17	my	14	27.01	3	2	2	1	6
18	as	10	25.12	2	2	1	0	5
19	has	7	23.85	1	1	2	0	3
20	for	12	22.66	2	0	3	2	5

The left-sided collocates displayed above suggest a propensity for the forum contributors to adopt the lemma HAVE (including its realizations *have*, *had* and *has*) when talking about diabulimia. Although the words *have* and *has* also feature as frequent right-sided collocates of this keyword, the realizations of this lemma collocate most frequently to the left of the node, that is, preceding it. In fact, when taking into account all of these various instantiations, the lemma HAVE constitutes the most frequent left-sided collocate of *diabulimia*, occurring within the five words preceding the node on a combined total of 42 occasions across the

corpus. As table 8 attests, collectively, the realizations of this lemma also collocate with *diabulimia* most frequently in the L1 position, that is, as the word immediately preceding the node. The formulation HAVE + *diabulimia* appears on 14 occasions across the DFC and accounts for 6.8 per cent of the total 205 instances of the lexical item *diabulimia* (including its spelling variants) in the corpus.

To 'have diabulimia', as many of the contributors would therefore formulate it, gives quite explicit rise to one of the two essential means of representing experience introduced earlier, specifically that of 'having' (Fromm, 1979). The lemma HAVE here functions as a 'possessive auxiliary' (Lipták and Reintges, 2006) which renders diabulimia as a discrete entity that is possessed by, rather than is an inherent part of, the person experiencing it (Semino, 2008: 182). As Fleischman (2001: 491), elaborating on the work of Warner (1976), argues, 'the genitive construction ("I have") casts the pathology as an external object in one's possession' and relocates the pathology *outside* the patient'.

Another frequent lexicalisation of diabuilimia in the corpus which constructs the condition as a discrete entity, and arguably does so more explicitly than the possessive auxiliary, is the use of the determiner the definite article *the* in the formulation 'the + diabulimia' (Charteris-Black and Seale, 2010: 56-58). As table 8 shows, *the* features among the most frequent left-sided collocates of *diabulimia*, and occurs in the L1 position on 10 occasions throughout the corpus. The resultant expression – 'the diabulimia' – helps to construct the condition as a discrete, countable entity that is detached from the individual experiencer (Davies, Knol and Turner, 2011: 179), as in the corpus extracts provided below. These and other extracts presented in this thesis hereafter have been selected on the basis that they have been deemed

to be representative of the particular discourse or broader feature of the data under examination.

Extract (3)
I u/stand your frustration, but please try to keep your A1Cs down. **The diabulimia** may give immediate gratification, but later on you will regret this. It will manifest itself in much worse complications than weight gajn, These words are harsh, but you have a choice now Imagine one full day as a blind person dependent on your child to take care of your needs.

Extract (4)
Getting over **the diabulimia** was quite possibly one of the hardest things that I have ever had to do. I was in therapy for quite a while and learning to eat normally again was really hard. I'm really glad that I confronted it though and I wouldn't want to go back down that path again. Find somebody that you can talk to and do whatever you can to beat it. It's not easy but it's well worth it :)

Extract (5)
I juust wanted to offer you support with **the diabulimia** if you want it. I struggled with Diabulimia for a long time but I've been in recovery for the past 2yrs. So I know what it is like to live with the condition and how frightening and how isolating it can be living with diabulimia. Please feel free to contact me either through my website or by personal message.

Despite the distancing function of the 'the + diabulimia' formulation, the contributors of these examples and other such formulations occurring across the corpus appear to exhibit a degree of familiarity with diabulimia in their messages, commonly expressed through what I interpret to be an expert patient discourse (Fox, Ward and O'Rourke, 2005), with the contributors adopting an almost ontological tone in the ways that they construct diabulimia in their advice-giving passages. The relationship constructed between diabulimia and the sufferers would have been quite different in these messages had the keyword *diabulimia* been pre-modified, for example, by the grammatically acceptable and equally plausible possessive pronoun 'my'. Such a formulation might have suggested a sense of ownership of and

proximity to diabulimia on the part of the contributor (Pierce, Kostova and Dirks, 2003), rather than create the sense of objectivity and distance that is accomplished, at least in part, through the ontological tone inherent in the 'the + diabulimia' construction (Fleischman, 1999).

Another frequent way in which the forum contributors created distance between diabulimia and themselves (and others experiencing the condition) was through a discourse of suffering. As table 8 demonstrates, the past participle *suffered* occurs as a left-sided collocate of *diabulimia* on 9 occasions across the corpus and was allocated the third-highest ranking LL score (69.01) of all the left-sided collocates of this term. Broadening the scope of the analysis to examine all of the realisations of the lemma SUFFER (including *suffer*, *sufferer*, *sufferers*, *suffering* and *suffered*) (n= 85), just over half (n= 43; 50.58%) refer either to diabulimia directly or to a biological consequence associated with it. The pervasiveness of this discourse across the DFC is testified, moreover, by the other words involved in the constructions 'suffered + with / from + diabulimia' (in particular the prepositional items *with* and *from*), which account, respectively, for the first and second highest-ranking left-sided collocates of *diabulimia* across the entire the corpus. Of the 28 occurrences of the left-sided collocate *with*, 4 immediately follow the lemma SUFFER. This lemma also accounts for 7 of the 17 occasions on which *from* occurs as a left-sided collocate of *diabulimia*.

I argue the dative construction 'SUFFER + from diabulimia' implies a degree of separation between the condition and the sufferer, who is here construed as negatively affected by it (Staiano, 1986). I argue that in such constructions, diabulimia takes on a causal role in, and is distinguishable from the individual as the very reason for, their suffering (Fleischman, 2001: 491). Likewise, the related, though less frequent, construction 'SUFFER + with diabulimia',

although construes the act or state of suffering as a joint experience (involving both diabulimia and the individual experiencing it), nonetheless conceptualises diabulimia as an independent agent who, in this case, shares the negative experience of the human sufferer (Hunt, 2013).

Examining the concordance lines surrounding the lemma SUFFER when used in reference to diabulimia, I observed the tendency for many of the contributors to construct their suffering as having taken place within more and less specific time periods within the past, as the corpus extracts below demonstrate.

Extract (6)
Hi guys..I've been type 1 diabetic for almost 5 years...I **suffered from diabulimia** (insulin skipping to lose weight) **for probably 2.5 years**..**I stopped this awful habit in August of 2008** but my recovery was followed by the development of gastroparesis and malnutrition as a result. I was in and out of hospitals and recovered in January of this year.

Extract (7)
NEVER GIVE UP. Why diabulimia is not more widely recognised I do not understand. I have **suffered with it for almost 7 years**, since I was diagnosed andrealised that insulin was makin me put on the weight I had lost pre-diagnosis.

Extract (8)
Hi, I **suffered from diabulimia for over 20 years and have been in solid recovery now for close to 4**. You are definitely not the only one! Ask any questions you want, I am very open about my journey to recovery and recovery! PS... Welcome to [forum name]!!!

Extract (9)
I **suffered quite badly with diabulimia when I was younger**. Started missing injections and would lose weight as my sugars rose. I then started skipping meals and, before long, was living on not much more than an apple a day. My diabetes suffered a lot and I am lucky that I didn't end up with a load of long term complications. It room about three years before I had the courage to seek help. The doctor I saw was great with the anorexia but not so much with the diabetes. It was a really hard thing to conquer but I did manage. **I was 15 when it all started**

> **and even now, 15 years on**, I still find it easy to slip back into old habits if I'm not careful.

The time periods over which these individuals describe suffering diabulimia vary quite significantly. The contributor of the message featured in extract (6), for example, describes their suffering from diabulimia as lasting for '2.5 years', a very precise figure, expressed here as a fraction, despite the tempering modality of the adverb 'probably' which directly precedes it. The contributor of the message in extract (7), on the other hand, describes the duration of their suffering in much less precise terms, as occurring for 'almost 7 years'. Similarly, the contributor of the message featured in extract (8) describes their suffering as lasting for 'over twenty years'. Least specific of all, the contributor of the message displayed in extract (9) describes their suffering with diabulimia as occurring 'when I was younger'. Furthermore, while some of the contributors appear to situate their diabulimia-related suffering as impermanent and occurring firmly in the past, others would seem to be more open to the prospect of the condition returning. Common to all of these messages is the sense that rather than being a fixed aspect of these contributors' lives, diabulimia is constructed almost as a phase, as something which, although has unquestionably severe consequences, can usually be pinpointed to a more or less specific period in their lives (usually in the past). Even in extract (9), where the time period in which diabulimia-related suffering occurs is vague ('when I was younger'), what is significant here is not so much the imprecision of the time period attested, but, rather, that the experience could be situated firmly in the past; emphasised further by the consistent use of past participles throughout this particular message.

It might be the case that discursively situating their diabulimia-related suffering within a particular period of time, usually in the past and of greater and less specificity, enables these contributors to adopt an ontological perspective and so to distance themselves from

diabulimia by assuming the subject position of a rational observer who is sufficiently detached from the condition that they are capable of examining and draw conclusions about it and their experiences of it (Pilgrim and Bentall, 1999). A potential motivation for this kind of temporal distancing (de Fina, 2003) is proffered by Galasiński (2008), who argues that the ability to look back on and situate illness within a specific time period allows sufferers to create distance between it and themselves, in so doing reframing any difficulties or other aspects of the condition as symptomatic of the condition itself, rather than as being tied to the essence of the individual's life.

As well as allowing the contributors to create temporal distance between themselves and diabulimia, constructions of diabulimia-related experiences as *suffering* also allowed some of the contributors to adopt the role of expert patient, and to give diabulimia-related advice to other forum members (see for example extract (8)). In a similar vein, in one instance the discourse of suffering was adopted by a contributor to seek advice from other members of the forum. This particular message is reproduced below.

> **Extract (10)**
> I was just wondering if anybody has **suffered from diabulimia** and have managed to overcome the condition.. I'm asking because as a young female i'm currently trying to beat diabulimia .. I'm a type one diabetic and have been for 19 years but only recently at 27 years old started to **suffer** with diabulimia for no apparent reason... Can anyone who may have gone through it and beaten it offer any helpful tips to combat this.. Much appreciated !!..

The contributor of this message appropriates the discourse of suffering both to seek out an advice giver, as well as to justify the appeal for advice in the first place. In this message, diabulimia suffering is constructed as almost tantamount to being experienced in and knowledgeable about the condition. The primary purpose of the message appears to be a

request for advice about diabulimia, which is directed at 'anybody [who] has suffered from diabulimia and [has] managed to overcome the condition', the implication being that one must have suffered and indeed overcome the condition to qualify as an advice-giver in this context. Although this contributor also refers to their self as 'suffer(ing)' with diabulimia, this construction also appears to be motivated by a desire to validate the request for advice, since the contributor also emphasises their lack of experience regarding the condition, specifically through the mitigating expression '*but only recently* at 27 years old started to suffer with diabulimia', which emphasises the relative recency and currency of the attested suffering, and with it this contributor's lack of experience of it.

The analysis has so far considered how the forum contributors distanced diabulimia from themselves, in so doing implying the condition to be attributable to an external cause rather than being an internal and essential part of their lives. Such constructions tended to occur when diabulimia was lexicalised as a noun (i.e. *diabulimia*) and construed as a discrete entity rather than as a part or attribute of the experiencers themselves, as Fleischman (1999: 8-9) observes, '[n]ouns congeal what is essentially a process into a static state that becomes superimposed on the individual rather than the individual being construed as an integral part of the development of the disease' (see also: Fleischman, 2001: 489-490). Many of the frequent left-sided collocates of diabulimia, displayed in table 7 and explored in the foregoing analysis, attest the tendency for noun disease labels to feature in such distancing formulations, including the construction of diabulimia as something that is had (*having*, *have* and *had* diabulimia), nominalised through the pre-modifying definite article *the*, and constructed as an external cause of an individual's *suffering*.

The tendency of the forum contributors to distance themselves from diabulimia in their messages arguably reflects a broader dualistic framework for understanding and communicating health and disease, according to which illnesses are commonly represented as external and separable from the individual, while good health is represented as an internal and integral part of the self (Herzlich, 1973). As Gwyn (2002: 18-19) puts it, 'when we talk of "catching a bug", or of there "being a virus around", our understanding of illness at large is of an "it" that strikes the individual from outside, making him or her ill'. Such constructions are particularly prominent in Western cultures in which diseases are typically nominalised (Cassell, 1976; Fleischman, 1999) and treated as things to be classified and evaluated (Jones, 2013: 45). The distancing constructions of diabulimia that I have observed so far might, therefore, constitute an instantiation of this particular cultural trend; an instance of individuals' appropriating broadly medico-scientific rhetoric to construct their experiences and understandings of illness as something that is external and reified. Similarly, it might also be the case that these distancing constructions afford the forum contributors the most convenient and culturally accepted linguistic apparatus through which to articulate their health concerns (Hydén and Mishler, 1999). On the other hand, these distancing constructions might signal a quite deliberate attempt on the part of the contributors to challenge dominant and deeply stigmatising discourses which render people experiencing eating disorders as morally culpable and so as to blame for their predicaments (Stewart, Keel and Schiavo, 2006).

Aligning constructions

Although, as we have seen, contributors to the fora represented in the DFC constructed diabulimia as discrete and separable from themselves, this was not the case across all of the messages contained in the corpus. Examining the collocates and concordance lines surrounding the diabulimia-related keywords explored in this chapter, I observed the traces of what I interpret to be an alternative discourse which, rather than distance, actually appeared to align those experiencing diabulimia with the condition. This discourse was realised most frequently through the participial adjective *diabulimic*, a keyword which, including its spelling variants, occurs 25 times in the corpus. As with *diabulimia* above, I now focus more closely on the left-sided collocates of the keyword *diabulimic* in order to ascertain how it is lexically framed in the corpus data. Table 9 below provides a positional breakdown of the left-sided collocates of *diabulimic* in the DFC.

Table 9: Positional breakdown of the left-sided collocates of *diabulimic*, five positions to the left of the node

	Collocate	**Freq.**	**LL**	**L5**	**L4**	**L3**	**L2**	**L1**
1	a	10	46.40	1	0	2	1	6
2	am	5	34.55	0	0	2	2	1
3	I	10	34.49	1	3	3	3	0
4	that	5	18.44	2	0	1	2	0
5	not	4	18.35	0	2	0	2	0
6	been	3	18.17	0	0	0	1	2
7	know	3	16.54	0	1	2	0	0
8	have	3	10.24	0	1	1	1	0

The dominance of the indefinite article *a*, particularly occurring in the L1 position (directly preceding the node) suggests the most common syntactic structure in which this keyword occurs to be ‘a + diabulimic’. This formulation, used by the contributors to refer variously to

themselves and others, also features in wider constructions which contain a number of the other frequent collocates featured in the above table, for example, *I, am* and *been*, which feature in such expressions as, 'I am a diabulimic' and 'have/has been a diabulimic'. These constructions, and the other L1 collocates displayed in table 9 (i.e. *am* and *been*) reflect the other essential way of representing experience outlined by Fromm (1979); that of 'being', examples of which are provided in the corpus extracts below.

Extract (11)
Hi, **I am a diabulimic** and i have struggled for 5 years.

Extract (12)
I am a diabulimic and need help. Can anyone suggest a forum for me, book or treatment? Anything? I'm desperate to get better.

Extract (13)
I just found this web site and need counseling from someone who can relate. **I've been a diabulimic** for 14 years now and glad to know there is finally a name for it and others like me out there.

Through their constructing diabulimia as something that they are (*am*) or have *been*, as opposed to something that they *have* (the other of Fromm's means of representing experience considered earlier), the contributors of these messages arguably convey the sense in which diabulimia is a part of their own (and other experiencers') lives. Indeed, diabulimia is here constructed as something that the contributors are or have been in the past, as opposed to a discrete, separable entity that they *have* or *from/with* which they *suffer* (Fleischman, 1999). Staiano (1986) argues that to state that 'I am + [condition]', as opposed to 'I have + [condition]' posits an identification with the condition in question, incorporating the pathology as a part of one's individual, personal identity (see also: Davies, Knol and Turner, 2011: 175). This argument is echoed by Fleischman (2001: 491) when she states that, 'the

existential statement ("I am") posits an identification with the pathology, an incorporation of it as a part of the self, while the genitive construction ("I have") casts the pathology as an external object in one's possession' (see also: Warner, 1976). In fact, taking this point further, it might even be argued that the formulation 'a diabulimic' potentially aligns the referents so closely with diabulimia that they are defined, and in many cases self-defined, according to their statuses as people who experience or who have experienced this health phenomenon (Fleischman, 1999).

Although they tend to occur overwhelmingly in expressions surrounding the keyword *diabulimic*, aligning discourses do not inhere exclusively in the adjectival form of this lemma. Turning our attention back to the left-sided collocates of *diabulimia* presented in table 8 earlier in this chapter, we notice that the possessive pronoun *my* occurs within the five words preceding *diabulimia* and its spelling variants on fourteen occasions across the corpus and operates as a determiner, immediately preceding the node, on six occasions. Cassell (1976) argues that encoding illness experience using this possessive expression serves to reduce the distance between the individual and the condition in question. Of the six instances of 'my diabulimia' in the corpus, half (n= 3) featured as part of the wider expression 'my diabulimia thread/post', and so are not considered in the analysis. Two of the remaining messages containing this formulation ('my diabulimia') are reproduced below.

Extract (14)
I guess there's quite some time since I wrote, however I'm better, like I'm not "cured" from **my diabulimia** however I've gotten a lot of help during the past 9 months, I'm in several groups at the hospital at the eating disorder unit also my D.nurse have been very helpful.

Extract (15)
Like, when ever I would have my really bad episodes and would end up in dka they assumed that it was just me being irresponsible. Now if I was to tell them

that I let that happen, that I made it happen? I'm pretty sure they would loose trust in me. They would support me no matter what but they would try to control every aspect of **my diabulimia** recovery.

Interestingly, and as the above examples demonstrate, these possessive constructions invariably feature within the wider context of attempted recovery from diabulimia. For instance, the contributor of extract (14) recounts positive experiences with a range of medical professionals, reporting feeling 'better', though not cured of diabulimia entirely. Likewise, the contributor of extract (15) appears apprehensive about talking about diabulimia to family members for fears of being considered irresponsible, which would in turn result in those family members attempting to 'control every aspect of my diabulimia recovery.'

These extracts therefore appear to signal a relationship between the construction of diabulimia as a possession and attempted recovery from it. Ridgway (2001: 338) observed a similar tendency in narratives of recovery from psychiatric disorders, and noted in particular the propensity for individuals to recast themselves, as part of their recovery, from the relatively passive role of sufferer to the comparatively more active role of owner of the illness concerned (see also: Deegan, 1994). This pattern of constructing diabulimia as a possession in the context of attempted recovery is also evident in the third and final of the messages in the corpus featuring the expression 'my diabulimia'. However, this message exhibits a more complex discursive construction of experiences of diabulimia recovery, the complexity of which becomes apparent only when examining the message in its entirety.

Extract (16)

Although im sure my weight is a massive contributing factor to **my Diabulimia**...sometimes I'm not too sure as I was bigger before but remember myself as being alot more confident about myself. Dont get me wrong...ive never been skinny...im now about 10 st and size 10 to 12. At my thinnest I was maybe 9 st but thats not thin for my almost 5'5" height. I feel like ive completely lost my

> way and have been like this for so long that I cant change back. I do have an appointment with a psychologist in a couple of weeks so im hoping for good things. I really would love for there to be a switch I could flick which would make me and the rest of you who are struggling just be ok and healthy and happy. Dont you find it strange (and to be honest extremely disturbing in a way) that despite all the complications we are exoeriencing or facing, the constant battling with ourselves, the guilt as well as the all-consuming nature of it all.....and we continue to do it to ourselves. I find that I doend a massive amount of time thinking about my situation...I also really worry that I continue to do it and wonder what else my body will go through before I finally say enoughs enough and get myself sorted. I sometimes think ill be forever like this(and getting progressively worse) until it kills me. And the devastating thing about this is that I feel like ive quietly accepted this awful fate as if this is how it will be so ive got no other choice but to accept it.

As in extracts (14) and (15), the contributor of this message describes attempted recovery from diabulimia, referring, for example, to a forthcoming appointment with a psychologist, from which they '[hope] for good things'. It would also appear that this contributor perceives the responsibility for diabulimia recovery as primarily their own, writing 'I continue to do it and wonder what else my body will go through **before I finally say enoughs enough and get myself sorted**.' Fleischman (2001: 492) argues that personal pronouns signal acceptance of a condition. In relation to extracts (14) and (15) I have argued that the use of possessive pronouns in relation to diabulimia might be connected to an attempt or intention to recover from the condition on the part of the contributors. However, if, following Fleischman's (2001) suggestion, the contributor of the message in extract (16) is accepting diabulimia in their life, it appears to be with an air of resignation. Towards the very end of the message, this contributor offers an almost resignatory reflection on their predicament by expressing the belief that they will never overcome diabulimia and possibly even die as a consequence, writing 'I sometimes think ill be forever like this (and getting progressively worse) until it kills me'.

This part of the analysis has revealed that some of forum contributors aligned themselves with diabulimia in their messages, incorporating the pathology into their personal identities. Such constructions tended to occur when diabulimia was lexicalised as an adjective (i.e. *diabulimic*), but could also occur when the condition was lexicalised as a noun, specifically in formulations that implied possession of it by the sufferer (i.e. 'my diabulimia'). Cassell (1976) points out that some diseases might be more conducive to being constructed as a possession, as opposed to the kinds of impersonal and objectifying formulations explicated from the corpus earlier in this chapter. Building on this pioneering work, Fleischman (1999, 2001) argues that Cassell's distinction between personal and impersonal constructions arises out of the distinction between acute and chronic illnesses, wherein such conditions (including diabetes) are, perhaps due to their being deeply intertwined with individuals' lives (Williams, 2000), often more readily constructed in personalising terms than often transitory acute conditions (see also: Warner, 1976).

Accepting this distinction, it might be the case that some of the contributors perceived diabulimia to be a part, even a complication, of their (and others') pre-existing diabetes and accordingly constructed, as they might do diabetes, diabulimia in similarly aligning terms. However, while it has been argued that such aligning constructions might signal the acceptance of the condition in question (Fleischman, 2001; Charteris-Black and Seale, 2010), the messages examined in the foregoing section would not support such a contention. The discourses of alignment, as I have referred to them here, appeared to attest the unpleasant and unwanted nature of the condition in these participants' lives and tended, also, to occur within the arguably less-stigmatising context of attempted recovery (Roe, Rudnick and Gill, 2007), which was frequently constructed as being the ultimate responsibility of the diabulimia experiencers themselves. It is also possible that by constructing diabulimia as something that

is an inherent part of their identities, as something that they possess and of which they have extensive subjective experience, the contributors were able to foreground their knowledge and experience of this condition, perhaps with a view to qualifying or legitimising (van Leeuwen, 2007) any words of wisdom regarding diabulimia that they might share with other forum members in this context (Hunt, 2013).

5.5. Discourses of agency

This part of the chapter explores the discourses of agency surrounding diabulimia in the forum messages contained in the corpus. Agency is a topic that takes on a particular significance in the context of eating and purging disorders, which have a component of moral culpability which often means that they are perceived and so discursively constructed as self-inflicted by those who sufferer from them (Crisafulli, Von Holle and Bulik, 2008). By "agency" I do not refer specifically or exclusively to agency as a grammatical category, but rather, I follow van Leeuwen (2008) in referring to agency in the broader sociological sense, as relating to the roles, for instance active or passive, that are attributed to people and things through discourse. According to this broader conception, agency is not always realized by the grammatical role of "agent", but can be realized in myriad other ways, including metaphor (van Leeuwen, 2008: 23).

Examining the collocates and concordance lines surrounding the diabulimia-related keywords presented at the beginning of this chapter, metaphor emerged as a principal means through which the contributors attributed agency to themselves, to others and indeed to diabulimia itself, in their messages. Metaphor essentially involves talking and potentially thinking about

one thing in terms of another on the basis of some perceived similarity or shared characteristic (Semino, 2008: 1). Metaphors are often used to communicate experiences that are subjective, abstract, complex and sensitive in terms of things that are usually less subjective, more concrete, simpler and less sensitive (Lakoff and Johnson, 1980: 36).

Because of its utility for communicating about phenomena that can be linguistically elusive and so difficult to describe, metaphor is profuse and wide-ranging in communication and disclosure about health and illness (Sontag, 1978; Gwyn, 1999, Kövecses, 2005). The reliance on metaphor for understanding and formulating illness-related experiences results, in no small part, from the general paucity of adequate descriptors for pain and other embodied experiences in English and other languages (Lupton, 2012: 56-57). Due to their generally lacking obvious physical consequences, mental illnesses, such as diabulimia and other eating disorders, pose particularly acute problems for both understanding and communication for the individuals experiencing them (Semino, 2008: 179), for whom metaphor can provide a valuable set of linguistic resources for understanding and articulating their subjective illness-related experiences and understandings. The propensity of metaphor for constructing agency in illness-related experience is also well-documented (Gwyn, 2002; Pickering, 2006; Stewart, Smith and Sparkes, 2011).

Examining the keywords and collocates and concordance lines surrounding the keywords *diabulimia* and *diabulimic*, metaphors domains of VIOLENCE and JOURNEY emerged as prominent in the ways that diabulimia-related agency was constructed across the corpus. The presence of the metaphorical domain of VIOLENCE was initially signalled by the keyword *struggling* (n= 33) and occurrence of the past participle *struggled* as a frequent left-sided collocate of *diabulimia* (n= 5) (see table 6). Moving beyond the keyword and collocation

outputs, a series of other lexical instantiations of the violence conceptual metaphor emerged through examination of the concordance lines surrounding the diabulimia-related keywords. Table 10 below displays the lemmas through which violence metaphors were realised in the DFC, along with the frequencies with which each lemma was used specifically to construct experiences and understandings of diabulimia across the corpus.

Table 10: Lemmas of violence metaphors used to construct experiences and understandings of diabulimia across the DFC

	Lemma	Freq. relating to diabulimia	Total Freq.
1	STRUGGLE	44	87
2	BATTLE	11	31
3	FIGHT	9	14
4	BEAT	5	15
5	TACKLE	2	2
6	VICTIM	1	1

It could be reasonably argued that a number of the lexical items displayed in the above table constitute sporting metaphors. The overlap between the lexicons of violence (or war) and sport is well documented (Sabo and Jansen, 1998), and reflects the fluidity and transferability of metaphorical domains more generally (Lakoff and Johnson, 1980). However, and as the forthcoming analysis will demonstrate, the use of these metaphors in the forum messages contained in the DFC resonates more with the domain of violence than sport, used to frame various aspects of the experience of diabulimia as a perilous and dangerous conflict rather than a competition (Demmen et al., 2015).

The profusion of violence metaphors in the construction of diabulimia and specifically diabulimia-related agency is perhaps to be expected given the dominance of this trope (otherwise termed ‘war’, ‘martial’ and ‘militaristic’) in health-related communication more

widely (Sontag, 1978; Montgomery, 1991; Knowles and Moon, 2006). As Lupton (2012: 61) observes,

> The language of warfare is extremely common in modern medical and public-health discourses that deal with cancer, infectious diseases and other illnesses […]. The immune system, for example, is commonly described as mounting a 'defence' or 'siege' against the 'invasion' of 'alien' bodies or tumours which are 'fought', 'attacked' or 'killed' by white-blood cells, drugs or surgical procedures. Such metaphors are common not only in literature dealing with medicine and individual treatment, but in public-health campaigns directed at large populations.

Reisfield and Wilson (2004: 4024-4025) propose four reasons for the dominance of this metaphor in the conceptualisation and articulation of illness. These are: (1) the general pervasiveness of this metaphor in societies, (2) its close correspondence to the ways that illnesses are regarded and treated in societies, (3) its utility to connote the seriousness of illnesses and (4) its strong focusing quality and ability to convey images of power and aggression to counter the powerlessness and passivity often associated with the experience of illness.

The use of violence metaphors in relation to illness has been criticised by some due to a perceived risk that this trope might construe the relationship between illnesses and sufferers as battle-like, in turn constructing failure to recover from or overcome said condition as a personal defeat for which the affected individual might be deemed culpable (see most notably Sontag, 1978). On the other hand, others have argued that such metaphors do not necessarily have the stigmatising or disempowering effects attributed to them by the likes of Sontag.

Reisfield and Wilson (2004), for instance, propose the potential for violence metaphors to enable and inspire resolve in people with cancer to overcome their condition. While Banks and Thompson (1996) have championed the powerful explanatory potential of metaphor – including those which draw on the domain of violence – for conceptualising and disclosing otherwise difficult to express or even uncommunicable experiences. Though it is not my intention to engage this debate further, like Banks and Thompson (1996) I am most interested in metaphor as a discursive resource, specifically through which the contributors featured in my data construct agency with relation to diabulimia in their messages.

The second metaphorical domain that I explore here is JOURNEY. Examining the concordance lines surrounding the keyword *diabulimia*, a series of journey-related metaphors emerged in the construction of various aspects of experience of the condition. Table 11 below displays the lemmas through which journey metaphors are realised in the corpus, along with the frequencies with which each lemma is used specifically to construct subjective experiences and understandings of diabulimia.

Table 11: Lemmas of journey metaphors used to construct experiences and understandings of diabulimia across the DFC

	Lemma	**Freq. relating to diabulimia**	**Total Freq.**
1	STEP	36	50
2	CYCLE	12	18
3	THROUGH	10	150
4	ROAD	9	28
5	DIRECTION	7	4
6	JOURNEY	6	10
7	FALL	5	40
8	OVER	5	133
9	SLIP	5	10
10	PATH	4	9
11	TRAP	3	5

As with violence metaphors, the profusion of journey words in the DFC is not surprising, given the pervasiveness of this metaphor in health-related communication (Todd and Low, 2010) as well as in the English language more generally (Kövecses, 2005). This metaphor has not attracted the kind of negative criticism directed toward violence metaphors but is, quite conversely, widely considered to offer a way of thinking and communicating about illness that is less stigmatising and in fact more empowering for those affected by it (Demmen et al.. 2015).

The contributors to the forum messages contained in the DFC appropriate both violence and journey metaphors when constructing experiences and understandings of diverse aspects of diabulimia, in addition to other, related topics, such as diabetes management, eating disorders, weight management, issues with practitioners, and depression and suicidal ideation. In this section of the analysis I consider how these two central metaphorical domains are used to construct sufferer and disease agency pertaining to diabulimia experiences and recovery in the forum messages contained in the corpus. I interpret the various agentive and non-agentive subjective positions afforded by these metaphors to contribute to the overall discursive construction of diabulimia in the corpus, and thus as capable of providing insight into the contributors' subjective first-hand experiences of life with and recovery from it (James and Hockey, 2007: 36-27). For the facility of analysis, this section is divided into two parts which consider those constructions that broadly encode agency-limiting and agency-granting subject positions to the person experiencing diabulimia.

Agency-limiting metaphors

Throughout the corpus, the relationship between diabulimia and the person experiencing it was frequently framed through violence metaphors, with diabulimia constructed variously as something against which individuals *struggle(d)* (n= 44), *fight* (n= 9), as something that people *battle(d)* (n= 11) and, on a solitary occasion, as a force of which they could be *victims* (n= 1). The extracts below provide examples of each of these constructions, demonstrating, at the same time, the propensity for these metaphors to be appropriated by the contributors to express their own and others' experiences and understandings of diabulimia.

> **Extract (17)**
> Sorry but I think that is a harsh and insensitive comment. Especially for those of us who have **struggled/are struggling with Diabulimia**. It is part of a complex and deadly eating disorder that isn't about just omitting insulin. It is a complicated mental disorder that is absolutely terrifying not only for those suffering from it but for their friends and family as well.

> **Extract (18)**
> I was diagnosed with type 1 7 years ago when I was 13 and have suffered with diabulimia for 5 of those years. Still **trying to fight it** :(

> **Extract (19)**
> I'm [name], I'm 24yrs old and through personal experience know what a **huge battle Diabulimia is**.

> **Extract (20)**
> I was just wondering if there were people here who were **victims of Diabulimia**, unfortunately I am.

In adopting these violence tropes, the forum contributors anthropomorphised diabulimia (Lupton, 1994: 63), constructing the condition as an agentive force or actor that inflicted violent or unpleasant actions onto the person experiencing it. These anthropomorphising

constructions also serve to create further distance between the sufferers and diabulimia, which is discursively rendered as a physical and unwelcome opponent against which the sufferers variously battle, fight, struggle, and so forth (Stewart, Smith and Sparkes, 2011: 587).

This subject position of the individual who resists and even fights diabulimia might therefore be interpreted as emphasising the non-volitional nature of these individuals' predicaments (Seale, 2001: 309) and their invariable desires to be rid of their condition (Knowles and Moon, 2006: 30). The prospect for agency appears to be precluded almost entirely in the message featured in extract (20), the contributor of which identifies their self and others experiencing diabulimia as *victims* of the condition; a striking lexical choice which draws quite explicitly on a victim discourse (Drew, Dobson and Stam, 1999) to emphasise the violent and predatory nature of diabulimia, while at the same time implying passivity on the part of those unfortunate enough to experience it, thereby absolving them of culpability in relation to their predicaments (Lupton, 1994). The appropriation of violence metaphors to emphasise the non-volitional nature of the diabulimic state, as it were, is arguably most explicit in extract (17), the contributor of which constructs their own and others' experiences of diabulimia as a *struggle* as part of a broader, impassioned rebuttal against the suggestion made in a previous message in this thread that diabulimia is not an illness, but in fact a voluntary practice, the consequences of which are self-inflicted.

Such agency limiting constructions were also accomplished through a series of journey metaphors which likened the powerlessness and lack of agency involved in the experience of diabulimia to the sensation of being bound or having movement otherwise restricted. Journey metaphors tend to refer to a particular embodied experience, usually that of moving from

some starting point, along a road or path in order to reach, or at least attempt to reach, some goal or destination (Gibbs and Franks, 2002: 144). However, across the DFC the experience of diabulimia was constructed in ways that emphasised a distinct lack of movement; likened to being caught in a *cycle* (n= 12) or *trap* (n= 3), and was also constructed as something into which people *slip* (n= 5) and *fall* (n= 5). The extracts below provide examples of each of these constructions. As with the violence metaphors considered previously, these extracts also demonstrate how this metaphor could be adopted by the contributors to construct their own and others' experiences of diabulimia.

Extract (21)
It's a **nasty cycle** and the most difficult thing I have ever had to even begin now to overcome.

Extract (22)
As others have stated, what you are doing is actually known as a dangerous eating disorder called Diabulimia. It's an **easy trap to get stuck in but it IS a trap and is very difficult to get out of**. Please take care.

Extract (23)
After eating more I **slipped badly into diabulimia** and lying about my sugars (even though a1c's tell the real story) - did the pump bolus and pull out the cannula thing.

Extract (24)
With so many teenagers suffering from bulimia and anorexia, I suppose this is the same thing but in another form. I think teenager girls with diabetes need a lot more attention to make sure they don't **fall into these pitfalls**.

Although, strictly speaking, most of these metaphors propose movement (i.e. being in a cycle, slipping and falling), I would argue the kind of movement described in these passages to be either non-intentional or in some way restricted. For example in message (21) above, the motion of being in a cycle is constructed as both unintentional and unpleasant, described by this particular contributor as *nasty* and difficult to break; 'the most difficult thing I have ever

had to even begin now to overcome'. Likewise, the motions of *slipping* and *falling* both comprise an element of non-volitionality, in these cases likening the development of diabulimia to accidentally slipping or falling downwards (drawing on the healthy is up / illness is down schema (Semino, 2005)), typically into something that is unpleasant (e.g. *pitfalls* (24)).

Such passages would appear to conceive of the experience of diabulimia not so much as a journey, but rather as something that constrains, obstructs or even traps, and so which actually limits opportunities for agency for affected individuals, who are rendered effectively powerless in these predicaments (Demjén, 2015: 115). Such constructions draw quite explicitly upon the common cultural conception of illness as '[i]mmobilizing the self' (Fullagar and O'Brien, 2012: 1066). Other researchers have noted the striking use of containment metaphors to express experiences of mental health disorders, most notably depression (McMullen and Conway, 2002; Semino, 2008; Charteris-Black, 2012); a choice of trope choice which these authors argue encapsulates the unpleasant and perhaps inescapable nature of the illness concerned (Kövecses, 2000: 36). Therefore, while the journey metaphor is often considered to afford greater prospects for agency with respect to illness, this broad metaphorical domain instead appears to be drawn upon by the forum contributors featured in the present study to express a lack of agency and to emphasise, I would argue, their apparent powerlessness and seeming lack of control with respect to their experiencing diabulimia (Demjén, 2015: 115). The contributor of extract (22) signals a particularly acute awareness of this quite contentious issue, stating that diabulimia is 'an easy trap to get stuck in but it IS a trap', asserting and indeed emphasising, through the capitalisation of the epistemically assured item 'is', the non-volitional nature of their experiences.

The analysis in this section so far has explicated a series of agency-limiting constructions in the corpus which liken the experience of diabulimia variously to being involved in a violent confrontation, being trapped or having movement restricted in some way. I have argued these various agency-limiting constructions to convey the (perceived) sense of powerlessness felt by those experiencing diabulimia, as well as to emphasise the non-volitionality of the affected individual with respect to their developing and enduring this health phenomenon (Harvey, 2012: 364), potentially generating sympathy and absolving, or at least mitigating, any moral culpability and accountability that might otherwise be attributed to them in relation to the development of it (Lupton, 2012: 66). Such agency-limiting constructions, when produced in the forum messages examined above, could therefore be interpreted as challenging broader cultural discourses which conceive of eating and purging disorders as self-inflicted (Crisafulli, Von Holle and Bulik, 2008).

Agency-granting constructions

The analysis in this section has so far revealed how violence and journey metaphors were adopted by contributors to the fora represented in the DFC to construct the prospect of agency for those experiencing diabulimia as limited, thereby emphasising, I have argued, the sense of powerlessness and lack of choice experienced by those affected by it. However, at other points in the corpus, those experiencing or having experienced diabulimia were actually constructed as having comparatively more agency in relation to their illness experiences. Beginning with the violence metaphors displayed as lemmas in table 10, in some instances various of these tropes were used to construct the person experiencing diabulimia as engaged in conflict not with the disease, but actually with themselves. For example, in the corpus

extracts below, the experience of diabulimia is characterised as a ‘struggle’ (25) and ‘battle’ (26) against the self.

> **Extract (25)**
> This is why I am so disgusted with myself....I cant stop despite sll this..and I'm only 37. I know it sounds dramatic but I feel like im just waiting for everything to be done so it will all be over as im so tired of the **constant struggle I have with myself**. Its like tge need to not be fat overrides any rational side of myself. Im quite an intelligent person and dont understand why I cant do this.

> **Extract (26)**
> Im so tired of having this **constant battle with myself** but ivw been this way for so long now I dont know hpw to be anyrhing else xx

These and other such constructions in which the metaphorical confrontation taking place is one against the self can be described as ‘inner division metaphors’ (Demjén, 2015: 124), the kind of which are often found where tensions arise surrounding expectations relating to the fulfilment of social roles (Lakoff and Johnson, 1980). Emmott (2002: 153), for example, states that inner division metaphors ‘commonly occur at times of personal crises’ (see also: Demjén, 2011). Similarly, Fullagar and O’Brien (2012) observed this inner division element in women’s accounts of depression and attributed such constructions to possible difficulties experienced when attempting to situate nonlinear, subjective experiences of recovery within traditional, ‘normalised’ expectations that recovery should occur in a linear, progressive fashion. Fullagar and O’Brien (2012: 1067) argued,

> The women had expectations that they would follow a linear trajectory toward becoming fully recovered. This battle was often as much with themselves, as someone with depression, as it was to overcome the effects of depression on their lives. The battle metaphor was in part related to the difficulty of fitting into

> clinical notions of recovery as a linear process of moving through stages or phases of improvement toward "normality".

I propose that Fullagar and O'Brien's (2012) explanation might also account for the kinds of inner division constructions that I have observed in the DFC. Examining the extracts above, and other occurrences of such inner-divisions constructions across the corpus, it became apparent that the sense of inner division encoded within these messages frequently arose out of a conflict between, on the one hand, a compulsion to engage in insulin omission and, on the other hand, a desire to recover from diabulimia; a conflict that was often reported to result in a failed or at the very least difficult attempt at recovery. As the contributor of extract (25) writes, 'im so tired of the constant struggle I have with myself. Its like tge [the] need to not be fat overrides any rational side of myself. Im quite an intelligent person and dont understand why I cant do this [(stop omitting insulin)]'. Therefore, although I have argued such constructions to imply a more agentive role for the individual in terms of both experiencing and recovering from diabulimia (for the sufferer is simultaneously involved in both sides of the confrontation), what is striking here is that the agency implied in terms of attempted recovery seems invariably powerless to overcome that agentive side of themselves that actually engages in diabulimia in the first place, thereby internalising its cause (Telford, Kralik and Koch, 2006).

Earlier in this section I considered how many of the contributors adopted the journey metaphor to construct their own and others' experiences of diabulimia in agency-limiting terms; as being similar to the sensation of immobility or being trapped in an unpleasant space or location. However, in a minority of cases (n= 16), journey metaphors were also used to construct experiences of diabulimia in more agentive terms. These constructions centred

round the lexical items *road* (n= 10), *path* (n= 4) and, less frequently, *journey* and *direction* (both n= 1). Examples of such messages, featuring each of the aforementioned metaphors, are provided in the extracts below. As these extracts attest, this discourse was drawn upon by contributors variously constructing their own and others' experiences of diabulimia.

Extract (27)
aw sweetie you are **on the road** to disaster and long term health problems. try a veggie diet,instead of cutting your insulin

Extract (28)
We have a member ([name]) that went through the same problem and has a blog detailing her **journey** about it

Extract (29)
I wish you the best of luck in whichever **direction** you have chosen. Please make sure to look at the long and short term effects this may have before you decide to reduce insulin.

Extract (30)
you are **heading towards a path** that has severe trouble at the end.recently it is coming more and more to light you are practicing something called diabulimia

Extract (31)
You are **on a dangerous road**, and I know from experience. Around the age of 19 I really began ignoring my diabetes and skipping boluses....

Extract (32)
I have somewhat **been down that road** before. I was around 100 lbs and I"m 5'5 I was so thin and wore like a size 2.

Extract (33)
seems like a **one way road** i say that as i have been "diabulimic" to some varying degree for over a year now.

Although the journey metaphors identified here might be considered to encode a greater degree of agency for the experiencer of diabulimia, this agency is problematised in these messages in various ways. Whether referring to the experiences of themselves or others, the

journeys described appear to have a mainly negative, certainly never positive, semantic prosody. For example, diabulimia is constructed as 'the road to disaster and long term health problems' (27), a 'path that has severe trouble at the end' (30) and a 'dangerous road' (31). Diabulimia is therefore here conceptualised not as the kind of journey that one would undertake intentionally or of one's own volition, but as a difficult and hazardous trek that is typically fraught with negative consequences and which often concludes at some dangerous or disastrous destination, such as 'disaster' (27) and 'severe trouble' (30). In describing diabulimia as a 'one way road', the contributor of extract (33) not only expresses the seeming unpleasantness of the experience of diabulimia, but also appears to draw upon the discourse of restricted mobility discussed earlier to convey, perhaps, the apparent hopelessness and non-volitionality of their predicament.

Although it is therefore the person experiencing diabulimia who undertakes the journeys described in these messages, the consistently negative prosody of these journeys conveys, I would argue, the perilous nature of this condition, with the logical implication that these are not the kinds of journeys that people with diabulimia would necessarily undertake through choice (Demjén, 2015: 115). Yet, at the same time, the use of these agency-granting constructions might also indicate, and indeed contribute to, a discourse of blame (Eccleston, Williams and Stainton Rogers, 1997), appropriated by some contributors as part of broader advice-giving passages which implore other forum participants to stop omitting their insulin in view of the negative and dangerous consequences of the journeys that they are on (note how extracts 27-31 are all focused on the experiences of another, with whom the contributors are pleading to stop engaging in diabulimic practices).

Examining closely the concordance lines surrounding the diabulimia-related keywords introduced earlier, it emerged that some of the forum contributors adopted a metaphor that does not fit so neatly into either of the domains of VIOLENCE or JOURNEY, specifically the metaphor that diabulimia is a *practice* (n= 14). Examples of the use of this trope to construct experiences and understandings of diabulimia in the corpus can be found in extracts (34) to (36) below.

Extract (34)
you are **practicing something called diabulimia**

Extract (35)
This is an **absolute dangerous practice!!!!** Many Type 1's have this problem of weight gain and this way of loosing weight is very very dangerous. As for myself I am quite fat to say the least, To many of you that know me would know I am a unhappy soul being this way and considering dropping the weight by literately to starve!!! I will use the insulin to keep BG's to a happy level. Diabulimia is lowering insulin and ride the BG's to 15/270 where as it should be 6/108. At that level of BG you will drop the weight quite significantly along with very big possibility of future complications like the eyes will go first and strokes and the like. I have known 2 girls loosing weight this way as 1 of them is having serious nerve damage in her gut and suspected intestinal knot as she's now in hospital recovering from a 12 hour operation!! Below is the link to my finding of this **very dangerous practice** as this is a must read!!!

Extract (36)
I find it scary how addictive **this practice** can be. People doing this seem to lose all control of thought and reason. They suffer a lot of emotional pain, and even with counseling, can go back to **this practice**, believing it's the only way to be thin.

To describe diabulimia as a *practice* or, to use the lexical verb, as something that is *practised*, is to construct this health phenomenon potentially as a quite deliberate activity, and to construe the person experiencing and so who practises it, as agentive in this process. Such messages stand in stark contrast to those examined earlier in this section, in which diabulimia was anthropomorphised into an agentive actor that inflicted suffering and other acts of

violence upon those affected by it. As the above extracts suggest, constructions of diabulimia as a *practice* tended to occur in messages written by contributors talking about, and usually advising, *other* members of the forum, rather than disclosing about themselves and their own experiences (n= 10; 71 per cent). In fact, the contributors of the messages featuring in extracts (34) to (36) above do not attest to having any personal, first-hand experience of diabulimia themselves (although, of course, this does not mean to say that this is necessarily the case in reality). The solitary occasion on which a contributor constructed their self as the agent who *practised* diabulimia is presented below.

Extract (37)
I practiced a little diabulimia when I was a lot younger. My cousin was worse than I was and she has a lot more problems than I do today.

Although the contributor of this extract identifies as having *practised* diabulimia in the past, it is worth noting that extent to which this they are actually described as having *practiced* diabulimia, and with it their agentivity in this process more broadly, are both attenuated in this message. This attenuation, as I have interpreted it, is chiefly the effect of the modifying expression 'a little' which directly precedes and so effaces the significance of *diabulimia* in this message. Furthermore, the confinement of this *practice* to the past, when this contributor was 'a lot younger', arguably serves to mitigate this contributors' agentive role in their diabulimia experiences, which are not only temporally distanced (de Fina, 2003), but also attributed to the naivety and inexperience of youth, the significance of which is heightened through the intensifier 'a lot' which precedes the word 'younger'. In other words, it might be that by situating their diabulimic 'practices' firmly in the past, this contributor is able to distance their self from the agentive subject position that is encoded within this discourse, perhaps in an attempt to pre-empt any potentially stigmatising accusations of irresponsibility

or blame that such a message might engender in this context (Gavin, Rodham and Poyer, 2008).

Examining the concordance lines surrounding the violence metaphors presented in table 10, I observed the proclivity of the contributors to construct recovery from diabulimia variously as a *struggle*, a *battle*, a *fight* and as something that individuals *tackle(d)* and *beat*. In the previous part of this section I explored how such metaphors could be used by the contributors to construct those experiencing diabulimia as blameless and non-agentive 'sufferers' or 'victims' of the violent actions of the comparatively agentive diabulimia. However, these violence metaphors could also be used in constructions of diabulimia that afforded considerably more agency to the person experiencing this health phenomenon, specifically in the context of (attempted) recovery, as evidenced in the corpus extracts below.

Extract (38)
I entered into a six week program. I had to take 6 weeks off work to do this but I was able to start recovery from the eating disorder and get my diabetes back in control. I only finished it at the end of February and **it is still a struggle** but I'm figuring out why I think they way I do about food and weight. It was the best decision I have ever made as far as for my health and life quality.

Extract (39)
It has been a really long and incredibly challenging process but overcoming an eating disorder is a major achievment and results in you regaining your life, so despite the **huge battle** it is most definately worth it.

Extract (40)
Four days is a good start. **Keep fighting**, and keep posting. Let us know how you are doing.

Extract (41)
To **tackle diabulimia**, there needs to be a clear pathway set out to deliver what is perceived to be the positive outcome (going from overweight to normal weight) without suffering the negative outcome (DKA).

Extract (42)

It was terrible and I was so scared but I am writing to say **you can get better and can beat this disorder**. I know how tired one can get of trying to cope day after day, year after year, but there is hope.

In the above messages, the person attempting to recover from diabulimia is metaphorically constructed as a soldier, fighter, battler, etc., who must overcome an enemy or adversary (diabulimia) in some sort of violent confrontation in order to recover from their condition (Demmen et al., 2015). In addition to being constructed as a violent conflict, recovery from diabulimia was also formulated using a series of journey metaphors. Examining the concordance lines surrounding the lexical instantiations of this trope (table 11), it emerged that recovery from diabulimia was variously constructed as a *step*, as something *through* which people moved or travelled, a *road*, movement in a particular *direction*, a *journey*, something people got *over*, and a *path(way)*.

Extract (43)

Way to go [name]! You are so right, old habits are indeed hard to win over. But the new habits are so worth it, as so are you as a person. You are so worth it. **Keep taking that 1 step at a time**. Even when we stumble, as long as we continue **going forward**, we are **on the right track**. Bless you and good luck [username].

Extract (44)

It's really really late here and I just wanted to post to you before I sleep for the night. Please, message me or anything if you have any questions, thoughts, just need to vent - ANYTHING. **It's a hard thing to go through and get over!**

Extract (45)

[username], may you be on the **road to wellness**, you've succeeded in the **biggest first step** and I encourage you to **march on**. Reach out when you need help, support, or answers and we'll be here for you. I wish you health and happiness!

Extract (46)

Now you're **moving in the right direction & your momentum will help you keep rolling**. Good luck with keeping your injections on time. (((([username])))

Extract (47)
Congratulations on **taking that step**, it must have been very difficult for you. I'm glad you came back to tell us, I was wondering how you were. I would definitely ask your Doc about therapy, so you can continue on your **journey to recovery**. Please come back and talk to us whenever you feel like it, people really do care, and want to support you. You can do this

Extract (48)
To tackle diabulimia, there needs to be a **clear pathway set out to deliver what is perceived to be the positive outcome** (going from overweight to normal weight) without suffering the negative outcome (DKA).

In the above extracts, recovery from diabulimia is constructed as a destination or as an attempt to travel or move on the part of the affected, recovering individual. These passages arguably reflect the broader tendency for recovery from illnesses to be conceptualised as a journey in Western cultures (Semino, 2008; Jurecic, 2012; Demjén, 2015), and follow from those explored earlier in this section, in which people experiencing diabulimia were constructed as immobile and inescapably bound to a typically unpleasant location, since recovery is likened in these examples to finding some way to become free of this bound predicament, to regain mobility and/or to escape the unpleasant location to which diabulimia typically confines people. I argue that this metaphor therefore retains the non-volitional and victimising properties of diabulimia, but at the same time discursively affords the person experiencing the condition a degree of agency in terms of the arguably less stigmatising context of (attempted) recovery (Roe, Rudnick and Gill, 2007), in these cases by regaining mobility, typically by overcoming an obstacle or escaping from some other confining predicament.

The foregoing section has considered how the person with diabulimia could be constructed in relatively agentive terms in relation to their experiences of this health phenomenon; as involved in a violent confrontation, as undertaking a journey, or as engaging diabulimia as a kind of practice. However, these agency-granting formulations were frequently problematised throughout messages contained in the corpus, with the actual degree of agency afforded to those experiencing diabulimia routinely mitigated as a consequence. For instance, violent conflicts were frequently framed as being against an unwelcome side of the self (as opposed to diabulimia) in the context of attempted recovery. Moreover, constructions of diabulimia as a journey or destination were consistently construed as fraught with perilous consequences, and as concluding in danger and disaster, and so did not resemble the sorts of journeys that one would logically wish to take of one's own volition. Furthermore, when diabulimia was constructed as a 'practice' undertaken by those experiencing it, this tended to occur in messages written by contributors who ostensibly appeared to lack first-hand, lived experience of it, typically as part of broader advice-giving sequences.

When unmitigated agentive constructions did occur, this tended to be in the context of (attempted) recovery. Although these violent confrontations and journeys could be arduous and difficult, they frequently featured in support- and advice- giving sequences, providing contributors with the opportunity to encourage and commend each other and themselves. As such, the messages examined in the foregoing section do not echo the kinds of "eating disorder as a choice" discourses identified elsewhere (Norris et al., 2006; Mulveen and Hepworth, 2006; Borzekowski et al., 2010). In fact, quite conversely, these messages appeared to be more concerned with creating further distance between the self (or others) and diabulimia, and can perhaps therefore be interpreted as emphasising the non-volitionality of those experiencing it, with contributors most frequently occupying (or situating others in) a

subject position that was most agentive and active not in terms of actually experiencing diabulimia, but in terms of attempting to overcome and recover from it.

5.6. Medicalising discourses

The final part of this chapter considers the medicalising discourses through which diabulimia was constructed in the DFC. The term medicalisation describes 'a process by which non-medical problems become defined and treated as medical problems, usually in terms of illnesses or disorders' (Conrad, 1992: 209). The diabulimia-related keywords introduced at the beginning of this chapter, and on which much of the intervening analysis has been based, are also suggestive of the presence of medicalising discourses in the corpus. First, take the nomenclature *diabulimia* (and its morphological variant *diabulimic*) itself. As discussed in Chapter Two, the term *diabulimia* is a portmanteau word (Lavrova, 2010) constructed by means of contaminating the words ***dia***betes and ***bulimia*** (Sharma, 2013). The incorporation of these two nomenclatures, each biomedical in origin, suggests that those using the term are likely to conceive of diabulimia as a disorder, where their use of it might even signal an attempt to elevate this health phenomenon to the same medically-recognised statuses granted to diabetes and bulimia. Furthermore, the corpus analysis presented in this chapter so far has uncovered particular discursive constructions of diabulimia that, despite its lacking clinical validation, seem to draw explicitly on characteristically biomedical discourses. In particular, the analysis presented in section 5.4 revealed the proclivity for the forum contributors to discursively construct diabulimia in distancing and objectifying terms. Likewise, the analysis presented in section 5.5 highlighted the tendency for experiences of diabulimia to be constructed in ways that, generally speaking, afforded those experiencing it limited prospects

for personal agency, broadly reflecting medical conceptualisations of eating disorders and self-starvation, which typically 'position [sufferers] who practice this as passive victims of a disease that they have no or little control over' (Day and Keys, 2008: 93). The final part of this chapter reports on and explores the tendency for the contributors to frequently construct diabulimia as a mental disorder, and to diagnose and discuss the symptoms of diabulimia in their messages.

Diabulimia as a mental disorder

Aside from the keywords on which the lion's share of the analysis in this chapter has been based, *diabulimia* and *diabulimic*, the other keywords used to lexicalise diabulimia in the corpus, *disorder* and *disordered*, were used overwhelmingly in reference to eating disorders, most frequently in the generic expressions 'eating + disorder' and 'disordered + eating'. Examining the concordance lines surrounding the lemma DISORDER, it emerged that some of the contributors medicalised diabulimia by constructing it quite explicitly as a *disorder*, an *eating disorder* and a *mental disorder*, as the corpus extracts below exemplify.

Extract (49)
Every type 1 diabetic is warned what happens to them if they don't take there insulin.....that is a given these people know, they are sick mentally, it is a **disorder** there sickness overpasses there need to be healthy.

Extract (50)
Especially for those of us who have struggled/are struggling with Diabulimia. It is part of a complex and deadly **eating disorder** that isn't about just omitting insulin. It is a complicated **mental disorder** that is absolutely terrifying not only for those suffering from it but for their friends and family as well.

Similarly, examining the concordance lines surrounding the terms *diabulimia* and *diabulimic*, a related construction emerges, wherein diabulimia is aligned with other, more specific, clinically legitimate diseases. For example, in the corpus extracts displayed below, diabulimia is likened to anorexia and bulimia.

Extract (51)
With so many teenagers suffering from bulimia and anorexia, I suppose this is the same thing but in another form. I think teenager girls with diabetes need a lot more attention to make sure they don't fall into these pitfalls.

Extract (52)
I think what we might be missing here is that this **is an eating disorder... not terribly different from anorexia or bulimia**... it's not a healthy diet, **it's a disorder**.

Extract (53)
Myself I have suffered from **anorexia and bulimia**, for some reason never done the ommitting insulin thing, just all the rest!

Extract (54)
there are **psychogenic causes**, but I thought I had read something about **altered brain chemistry, as well, in anorexia and bulemia?**

In the above extracts, diabulimia is explicitly likened to anorexia and bulimia, described, for instance, as 'the same thing but in another form' (51) and as 'an eating disorder… not terribly different from anorexia or bulimia' (52). This connection is also made, albeit more implicitly, in extract (53), the contributor of which suggests that they are at a loss to explain why they have not experienced diabulimia, having experienced anorexia and bulimia, writing, 'I have suffered from anorexia and bulimia, for some reason never done the ommitting insulin thing, just all the rest!', where the expression 'all the rest' also serves to collectively group diabulimia with these other clinically recognised eating disorders. The contributor of extract (54) situates diabulimia firmly in a biomedical discourse by attributing its causes to – albeit

vaguely worded – biological and neurological complications, that is, to 'psychogenic causes' and 'altered brain chemistry', the latter of which is linked, once more, to the perceived causes of anorexia and bulimia.

Diagnosing diabulimia online

Another means by which the forum contributors medicalised diabulimia was to draw on what I interpret to be a diagnostic discourse (Saukko, 2008) in order to establish diagnostic criteria for diabulimia and accordingly judge the severity of attested 'symptoms' and actually determine whether or not another contributor (or someone else) could be described (or diagnosed, even) as having the condition. Examining the concordance lines surrounding the diabulimia-related keywords (table 5), it emerged that on some occasions the contributors attempted to establish diagnostic criteria for diabulimia by referring to the condition's '(warning) sign(s)' (n= 4), as in the extracts below.

Extract (55)
Warning signs for diabulimia include a change in eating habits - typically someone who eats more but still loses weight - low energy and high blood-sugar levels

Extract (56)
I just recently found out about this and it scares me. This is something that should be talked about and discussed so parents and family know the **warning signs**.

Extract (57)
I am glad that there are fora, but I am just hearing about this for the first time and I hope that more and more people can find out about this and know the **warning signs**

Extract (58)
I hope the media brings this more to the spotlight, where parents, teachers and young people can see the potential dangers and look for **warning signs**.

As well as signalling attempts to situate their own and others' experiences of diabulimia within a biomedical framework, the ready adoption of this diagnostic lexis also hints, I would argue, at these contributors' attempts to occupy the subject position of expert patient (Fox, Ward and O'Rourke, 2005), with such terminology frequently incorporated into broader advice-giving sequences. This discourse is also evident in messages in which contributors comment on and determine the prototypically and severity of the 'symptoms' and 'warning signs' disclosed by others. For example, the contributors of the corpus extracts below describe features of what they perceive to be (and to not be) 'classic diabulimia' (59) and 'severe diabulimia' (60).

Extract (59)
Classic diabulimia is not a complete renunciation of insulin, that would just be suicide. Diabulimia do enough insulin to barely get by.

Extract (60)
I had **severe diabulimia** from 20-33 (I was diagnosed at 15). I basically ate all the sugar I could get my hands on and barely injected any insulin.

In a similar vein, despite diabulimia's lacking clinical validation, a number of the contributors nonetheless appear to diagnose themselves and/or others (usually but not always other forum members) as having the condition, as in extracts (61) and (62), below.

Extract (61)
you are practicing something called diabulimia please please talk to someone!! do a google search on this.we have a couple of members here who have gone through this im hoping they see this and answer you

Extract (62)

It sounds to me like diabulimia - she is eating whatever she wants and not taking enough insulin for the food to actually be absorbed. What she needs is professional help. Sorry, but threatening her in any way won't help.

In making diagnoses and grading and judging the severity of the symptoms attested, many of the contributors to the fora represented in the DFC not only adopt the subject position of expert patient, but also, I would suggest, re-inforce the medicalisation of diabulimia by subjecting the condition to the kind of classification that is routinely made of clinically recognised mental and eating disorders. Yet, despite the apparent readiness with which many of the contributors adopted the subject position of expert patient, a number of the messages contained in the corpus appeared to situate diabulimia-related concerns firmly within the remit and responsibilities of medical practitioners, i.e. and not the forum contributors, as the corpus extracts below demonstrate.

Extract (63)

you know what you're doing is dangerous and i think it's great that you are seeking support here, are you able to do the same thing in 'real life'? **are you able to go to your GP/endo/nurse?**

Extract (64)

It might help to look forwards and consider the implications of skipping injections? And other 'posters' on here are right, **try and get some help from your Doc** if your family and/or DN can't help.

Despite its lacking official disease status, the contributors of the messages featured in the above extracts nonetheless signal an intention to (get others to) seek support from a medical practitioner, disclose about their or others' previous diabulimia-related encounters with practitioners, and implore – or, in keeping with the theme of the expert patient, 'refer' – others to seek advice from a practitioner.

The foregoing analysis has revealed how some of the forum contributors drew on what I have interpreted to be a diagnostic discourse in order to actually diagnose themselves and others as having diabulimia, as well as to judge the typicality and severity of the symptoms attested, and to refer others onto medical practitioners for help with their conditions. However, at other points across the corpus data, forum contributors appeared to contest the suggestion that they or another forum member actually had diabulimia. The presence of such contestations was initially signalled by the negative item *not*, which features as a left-sided collocate of both *diabulimia* and *diabulimic*, occurring within the five words preceding these keywords on six and four occasions, respectively (see tables 6 and 7). However, when examining the co-occurrence of the diabulimia-related keywords alongside this negative item, the emergent contestations of diabulimia diagnoses appeared to be made not on the basis of the condition's lacking official disease – as I had originally suspected to the case – but, rather, because the particular experiences described were not judged to befit or satisfy the diagnostic criteria for a diabulimia diagnosis, presumably as they have been established on these and other online, peer-led platforms. Examples of such passages are provided in the corpus extracts below.

Extract (65)
As long as you're not actually using less insulin to raise your BG levels to lose weight...then no, you're **not considered diabulimic**.

Extract (66)
To [name] and other low carbers, **No, your approach is not diabulimia**, as you are not skipping shots in order to pee out sugar and lose weight. I really can't comment on your overall health, but that is **not diabulimia**.

Extract (67)
My endo equated what I do with diabulimia, yet my own choices have been accompanied by weight loss, improved health, more energy, disappearing complications, better control (though my Christmas A1C slid back up to 6.0), and a much better prognosis. My war-torn retinas looked great once again last week! **What I do isn't diabulimia** yet I suppose it is close if you only consider it with ignorant eyes. I still take my insulin and have never contemplated not, but my

> current levels are just below half of what they were four years ago -- <50u vs 120u. I just don't eat many carbs and some days like the past couple close to none, and I eat lots of fat. I've been mostly in ketosis for the last week and have dropped four pounds, and I'm loving it!

The contributors of the messages displayed in extracts (65) and (66) each resolve that because other forum contributors' insulin omission was not motivated by a desire to lose weight, they cannot be considered to be diabulimic. Curiously, the contributor of the message featured in extract (67) refutes the suggestion made by their endocrinologist that they have diabulimia, on the basis that they still take some insulin, if not necessarily in prescribed amounts. The expression 'I suppose it is close if you only consider it with ignorant eyes' featured in this message is tellingly disparaging of the practitioner's perspective (as 'ignorant') and simultaneously further solidifies the sense in which it is the contributors to this and other such online communities who are the knowledgeable "experts" regarding it (Fox, Ward and O'Rourke, 2005) and who are thus seemingly most qualified to determine who does and does not have it.

Examining the collocation output for *diabulimia* displayed in table 6, I also observed the occurrence of *called* as a high-ranking left-sided collocate, collocating exclusively in the L1 position (i.e. called + diabulimia) (n= 7). I initially suspected that this trend would signal a counter discourse to the kinds of medicalising constructions identified throughout this section so far; one that reflected the non-official and contested status of the word *diabulimia* as a disease nomenclature and, with that, potentially the contested status of diabulimia itself as a disease. However, upon examining the concordance lines surrounding the co-occurrence of these two items (called + diabulimia), it emerged that the seeming tempering modality of this expression was actually reflective more of the contributors' uncertainty regarding the name *diabulimia* itself, rather than the legitimacy of the suffering experienced and disclosed by

those other members who attested to having it (Charteris-Black and Seale, 2010: 96). Of the seven occurrences of the two-word formulation ‘called diabulimia’, one was in reference to the establishment of a diabulimia thread. The remaining six are reproduced in extracts (68) to (73), below.

Extract (68)
I misuse my insulin for years, had poor control and never tested. It can get you into a cycle **called diabulimia**, without realizing it.

Extract (69)
I have been looking at various posts on **so called "Diabulimia"** and feel for all Type 1 diabetics struggling with weight.

Extract (70)
As others have stated, what you are doing is actually known as a dangerous eating disorder **called Diabulimia**. It's an easy trap to get stuck in but it IS a trap and is very difficult to get out of. Please take care.

Extract (71)
Thousands of the approximately 1 million people with Type 1 (or juvenile-onset) diabetes are willing to take the risk. Mostly teenagers and young women, they suffer from a unique eating disorder **called diabulimia**.

Extract (72)
Some people do, it's certainly not the norm and it is a dangerous thing to do. It's **called diabulimia** although I don't think it has an official clinical name.

Extract (73)
you are heading towards a path that has severe trouble at the end.recently it is coming more and more to light you are practicing something **called diabulimia**

As the above extracts demonstrate, the contributors of these messages variously express sympathy for those experiencing diabulimia, offer prevalence figures, emphasise the dangerous nature of the condition and even attest to having first-hand experience of it. In other words, it seems that, for these contributors, any doubt surrounding diabulimia pertains

not the debilitating and distressing experiences of those who claim to have experienced it, but, rather, specifically to the status of the nomenclature itself.

The analysis presented in the final section of this chapter has elucidated an intriguing tendency for the contributors of the forum messages contained in the DFC, including those who ostensibly do and do not self-report as having diabulimia, to construct this health phenomenon using decidedly medicalising discourse. As explored in Chapter Two, numerous existing studies have observed and reported the propensity for members of online health communities to construe and categorise their experiences and emotional difficulties in medicalising terms (Barker, 2008; Ziebland and Wyke, 2012; Hunt, 2013). Such is the pervasiveness of this discourse that, even when online (self-) diagnoses were refuted by the contributors – interactionally delicate moments at which the medicalised status of diabulimia was called into question and potentially threatened – these refutations were made on the grounds that the reported "symptoms" did not fit with the diagnostic criteria established by "expert patients" in this and other such online, peer-led communities, rather than on the grounds that this disease is not actually recognised as such by the medical community.

5.7. Chapter summary

Focussing on the keywords *diabulimia* and *diabulimic*, salient both in terms of their computational "keyness" and their precise lexical relation to the theme of diabulimia, the corpus analysis presented in this chapter has revealed a great deal already about how the forum contributors discursively construct diabulimia in their messages. The foregoing analysis has revealed the tendency for the forum contributors to construct diabulimia in

distancing and medicalising ways, and to mitigate their involvement and volitionality in it, with sufferers regularly rendered non-agentive, except for in contexts of recovery. The possible motivations for, and consequences of, these ways of constructing diabulimia will be explored in depth in Chapter Eight.

6. Insulin, insulin restriction and body weight

6.1. Introduction

This chapter explores the second theme identified through keyword categorisation in Chapter Four, insulin, by examining how the keyword *insulin*, the most "key" lexical item in the corpus, features across the forum messages. To situate the forthcoming analysis within the study's overall concerns, special attention is paid to how the discourses surrounding the theme of insulin feature in the broader discursive construction of diabulimia in this context. Examining this keyword within its more expansive textual surroundings, once more using the corpus techniques of collocation and concordance, the ensuing analysis identifies and explicates discourses surrounding the practice of insulin restriction and the relationship between insulin and body weight.

6.2. Insulin-related keywords

Given that diabulimia is characterised by the deliberate reduction or omission of insulin for weight loss, it seems reasonable to expect constructions of insulin to play a central role in how experiences and understandings of diabulimia are constructed in the forum messages (Bogatean and Hâncu, 2004, Peel et al., 2005). Indeed, the centrality of this theme in the DFC is confirmed empirically by the high frequency and saliency of the lexical item *insulin* itself, which features not only as the most frequently-occurring lexical item in the corpus, but also as the keyword with the highest "keyness" value, indicating its statistical salience in the

forum messages (see Chapter Four). The insulin-related keywords reproduced in table 12 below afford a series of promising lexical entry points through which to examine the discourses surrounding insulin in the DFC, with a view to ascertaining how such constructions contribute to the broader discursive construction of diabulimia in the corpus.

Table 12: Insulin-related keywords in the DFC ranked in order of keyness

	Word	Frequency	%	Keyness
1	insulin	787	0.66	8420.27
2	lantus	84	0.07	1129.01
3	basal	75	0.06	549.19
4	bolus	43	0.04	430.88
5	pump	73	0.06	409.94
6	taking	173	0.14	354.90
7	humalog	25	0.02	336.00
8	nph	23	0.02	300.81
9	skipping	36	0.03	279.53
10	injections	37	0.03	252.31
11	low	132	0.11	233.77
12	intake	42	0.03	203.03
13	meds	14	0.01	188.16
14	take	237	0.20	184.10
15	inject	25	0.02	165.96
16	levemir	12	<0.01	161.28
17	basals	9	<0.01	120.96
18	skip	23	0.02	117.72
19	boluses	9	<0.01	104.92

The above keywords encapsulate various aspects of insulin therapy, denoting, for instance, particular types or brands of insulin (*lantus*, *basal*, *bolus*, *humalog*, *nph*, *levemir*, *basals*, *boluses*), methods and processes of administering (or skipping) insulin doses (*pump*, *taking*, *skipping*, *injections*, *intake*, *take*, *inject*, *skip*), as well as words associated with amounts (*low*) and with medication more generally (*meds*). Rather than attempt to provide an exhaustive account of all the words in table 12, the corpus examination undertaken in this chapter will

focus primarily on the most frequent and most salient keyword in this list, *insulin*. Given its high frequency and keyness value, and precise lexical relation to insulin itself, this keyword should afford a promising lexical entry point through which to explore the discourses surrounding this theme across the forum messages, focusing in particular on how these relate to the broader construction of diabulimia in the corpus. Other items displayed in the above table do feature in the forthcoming analysis, though only when collocating alongside this highly frequent and salient keyword.

6.3. Collocates of *insulin*

To ensure that the analysis captures the fullest possible range of discourses surrounding the keyword *insulin* in the DFC, the spellings of this keyword were standardised across the corpus prior to the collocation and concordance procedures being carried out. Consequently, the misspellings *insuling* (n= 2) and *insuline* (n= 2) were corrected, resulting in a revised frequency of *insulin* of 791.

Collocation was measured using a span of five words, both to the left and right of the node separately, with a minimum frequency threshold of $f \geq 5$. The collocation procedure yielded a total of 157 left-sided and 150 right-sided collocates. For the facility of analysis, I focus on only the top 20 left- and right- sided collocates (ranked by LL score), displayed in table 13 below. A complete list of these collocates is provided in the CD-ROM enclosed in Appendix A.

Table 13: Top 20 left- and right- sided collocates of *insulin*, freq. ≥5, ranked by LL score

	Left-sided collocates			Right-sided collocates		
	Word	**Freq.**	**LL**	**Word**	**Freq.**	**LL**
1	taking	91	686.58	weight	72	306.42
2	take	57	317.47	to	148	300.66
3	on	78	279.28	and	134	278.84
4	to	142	277.34	I	152	267.15
5	the	130	271.73	is	75	173.44
6	of	102	269.88	for	65	164.24
7	my	90	261.80	lose	32	163.80
8	not	69	225.04	a	86	152.84
9	your	61	192.06	as	44	122.84
10	less	27	166.61	the	86	116.89
11	skipping	21	162.78	in	54	115.35
12	amount	22	150.05	gain	22	105.86
13	I	116	149.11	or	34	98.83
14	skip	16	132.86	you	63	97.25
15	and	88	117.68	resistance	10	83.87
16	weight	38	112.43	that	52	76.25
17	that	61	105.81	it	51	73.48
18	without	18	102.08	needs	14	72.42
19	enough	19	100.38	if	29	69.30
20	stop	17	95.87	not	34	65.69

As can be observed from the above table, the LL measure of collocation has once again reliably yielded a mixture of lexical and grammatical items. Four of the left-sided collocates in the above table also feature as keywords relating to the theme of insulin, all of which denote the taking (or skipping) of insulin doses (*taking*, *take*, *skipping*, *skip*), a pattern likely indicative of the centrality of the acts of taking and not taking insulin to diabulimia and, moreover, to its discursive construction across in the forum messages.

The collocates displayed in table 13 also reveal other linguistic patterns surrounding this salient keyword in the corpus, such as words denoting amounts (*less*, *without*, *amount*, *enough*) and associated with weight (*weight* (left and right), *lose*, *gain*). Other collocates

feature alongside *insulin* in fixed formulations which refer to specific phenomena, such as the right-sided collocate *resistance*, which refers to the diabetes complication *insulin resistance*, and *needs*, which features as part of the fixed expression *insulin needs*, referring to the insulin-related requirements of diabetes management regimen. The personal pronouns (*my*, *I* (left and right), *your* and *you*) provide further evidence of the contributors' discursively constructing diabulimia and other related themes, such as insulin, from their own, subjective perspectives (Harvey, 2013: 174-175).

Collectively, the left- and right- sided collocates displayed above indicate various interesting linguistic patterns surrounding the keyword *insulin*, patterns which, pursued in closer, fine-grain analytic detail, are likely to reveal more about the discourses surrounding insulin in the forum messages and, in turn, how such discourses might contribute to the broader discursive construction of diabulimia in the corpus. To this end, the remainder of this chapter is divided into two parts, first considering the discourses surrounding insulin restriction, before exploring the discourses surrounding insulin and weight.

6.4. Discourses of insulin restriction

As some of the insulin-related keywords (table 12) and collocates of *insulin* (table 13) suggest, the practices of using and of not using insulin feature, rather unsurprisingly, prominently in the forum messages contained in the corpus. Concentrating on the strongest left-sided collocates of *insulin*, the keywords *taking* and *take*, I noticed that even these lexical verbs frequently featured in formulations that actually denoted the act of restricting insulin. The collocate *taking*, for example, features alongside the keyword *insulin* in expressions such

as ‘not taking insulin’ (n= 33), ‘stopped taking insulin’ (n= 9), ‘stop taking insulin’ (n= 5), ‘avoid taking insulin’ (n= 1), ‘quit taking insulin’ (n= 1), ‘without taking insulin’ (n= 1), ‘taking yourself off insulin’ (n= 1) as well as in formulations which express the administering of a reduced or smaller amount of insulin than that which is presumably recommended by a practitioner, such as ‘taking too little insulin’ (n= 1), ‘taking small amounts of insulin’ (n= 1) and ‘taking a small dose of insulin’ (n= 1). Similar patterns are also observable where *take* occurs as a left-sided collocate of *insulin*, in expressions such as ‘not take insulin’ (n= 5), ‘take less insulin’ (n= 4), ‘don’t take insulin’ (n= 2), ‘didn’t take insulin’ (n= 2), ‘struggling to take enough insulin’ (n= 1), ‘wasn’t going to take insulin’ (n=1) and ‘neglected to take insulin’ (n= 1). Many of the expressions listed above also account for a significant portion of the occurrences of *not* as a frequent left-sided collocate of this keyword.

Unlike the collocate *take*, the lemma SKIP was used to lexicalise insulin omission directly, without the kinds of negation strategies observable in the above examples. However, examining all the concordance lines surrounding the keyword *insulin*, I observed a plethora of other lexical verbs also used to construct the practice of restricting insulin dosage in the forum messages. A lemmatised list of these items is provided in table 14, below.

Table 14: Lemmatised list of verbs denoting insulin omission/reduction in the DFC

	Lemma	Freq. relating to diabulimia	Total Freq.
1	SKIP	64	68
2	STOP	36	112
3	REDUCE	27	53
4	ABUSE	16	17
5	OMIT	16	16
6	MANIPULATE	13	13
7	CUT	12	39
8	WITHHOLD	7	7
9	RESTRICT	6	15
10	QUIT	4	15
11	LIMIT	4	19
12	DECREASE	3	5
13	UNDERDOSE	3	3
14	LOWER	3	50
15	MINIMIZE	2	4
16	AVOID	2	24
17	DENY	1	3
18	DEPRIVE	1	3
19	FIDDLE	1	1
20	FORGO	1	1
21	INTERRUPT	1	1
22	MISUSE	1	2
23	PURGE	1	26
24	SHORT	1	30
25	SHORTCHANGE	1	1
26	TWEAK	1	1

Given the plethora of terms used to denote the action of reducing or omitting insulin evident in the corpus, I will refer to this concept broadly as 'insulin restriction' in my linguistic treatment of it here, unless, of course, referring to specific examples from the data in which alternative expressions are used. Examining these words (table 14) in conjunction with the collocates of insulin displayed earlier (table 13), this section will explore the discourses surrounding the practice of insulin restriction in the corpus, elucidating the ways in which such practices could variously be constructed: in conceptually vague and distancing terms; as

a form of resistance; as a form of deviance; and actually as a normative part of diabetes self-management. The analysis in this section will pay close attention to how these discourses and ways of constructing insulin restriction in the corpus contribute to broader constructions of diabulimia.

Vagueness and distancing

Examining the lemmatized items displayed in table 14 in their contexts – through the prism of concordance – eleven of these words seemed to be used to broadly denote the reduction of insulin dosage (REDUCE, CUT, RESTRICT, LIMIT, DECREASE, UNDERDOSE, LOWER, MINIMIZE, PURGE, SHORT, SHORTCHANGE). Nine of these items tended to be used to denote a more extreme reduction, and in some cases complete omission, of insulin dosage (SKIP, STOP, OMIT, WITHHOLD, QUIT, AVOID, DENY, DEPRIVE, FORGO). However, the remaining six items featured in this table (ABUSE, MANIPULATE, FIDDLE, INTERRUPT, MISUSE and TWEAK) are more ambiguous in this regard. Though these words are not inherently vague, they are conceptually vague in the ways that they describe insulin restriction, since they do not specify whether or not the insulin dosage described is even reduced, let alone omitted altogether.

Examining the lemmas featured in table 14 in greater contextual detail, I found that even in those cases where the lexical verb might appear to explicitly denote omission or reduction of insulin dosage, the precise details regarding *how much* insulin was reduced or omitted rarely went beyond these rather vague expressions, as the randomly selected corpus extracts below illustrate.

Extract (74)

8 years ago, before hearing the term "diabulimia" I decided to **reduce my insulin intake** as well in order to lose some weight. I maintained my basal injections, but hardly ever gave a bolus (regardless of correction bolus or food bolus). I did this for probably 4-5 months and ended up losing 40 pounds. It got to a point though where I started getting so thirsty that I would consistently eat more as well, and my portion sizes became outrageous. At 125 pounds, I could sit down and eat an entire large pizza and not think twice. Kind of crazy looking back.

Extract (75)

I'm in recovery from Diabulimia. My ED started out as anorexia and then bulimia when I was a teenager, shortly after I started university I began to **omit my insulin**. It is such a terrifying disorder as once you are in the cycle of disordered eating patterns and insulin ommission it is incredbly difficult to get back on track. I was hospitalised just over 2yrs ago and thankfully in the past year have made a good recovery.

Extract (76)

Im not new here, i was a very active member awhile back and have created this "fake" account to post now about what im currently dealing with. Im so sick of this disease and everything that goes with it. I spent the last 6 months depressed and battling suicidal thoughts. Ive since gotten on anti depressants and thats helping alot. The weight gain is now what is really affecting me. Pre diagnosis i always maintained a fairly healthy weight, then of course i got very thin. Gained weight back to get healthy again, low carbing, dieting, exercising, kept gaining weight. Nothing works. I needed to gain 15 pounds after diagnosis and instead despite my efforts ive gained 55. I weigh more than i ever have in my life, 20 lbs more than i did when i gave birth! So i feel as if my only option is to **restrict insulin** to lose weight. Yes i know the risks, i dont plan on doing it forever but at least until i lose a few pounds and can fit my clothes again, i have nothing i can wear currently. **I am still using lantus, altho i lowered it**. I have stopped humalog. Im on day 2 of doing this. Has anyone else done this? I know this is not supposed to be ok, but im at my wits end with my weight. Nothing is working and its making my depression worse.

Vagueness is a multi-functional communicative phenomenon that can be used to meet a range of interactional needs and to accomplish various representations of topics and things in the world (Jucker, Smith and Lüdge, 2003; Adolphs, Atkins and Harvey, 2007). The vague expressions in table 14 along with the vague quantification of the amounts of insulin restricted (e.g. in extracts 74-76) might constitute a strategy for the contributors to shift the

focus *away* from the amounts of insulin being taken which, if particularly high, might engender negative and critical responses from fellow contributors who perceive it as signalling bad or irresponsible diabetes self-management (Armstrong, Koteyko and Powell, 2011). Similarly, the contributors of these messages might formulate their insulin reducing/omitting behaviours in vague terminology in an attempt to 'soften the impact' of the proposition (Jucker, Smith and Lüdge, 2003: 1764), in order to downgrade or reduce the perceived seriousness of their actions (Adolphs et al., 2004: 20).

This interpretation is further supported by evidence of distancing strategies in the above messages. For example, the contributor of the message featured in extract (74) temporally distances their self from their insulin restricting actions by situating these firmly in the past – a distancing strategy explored in the previous chapter – through the expression 'kind of crazy looking back'; a negative evaluative statement that also serves to cast this contributor in the less stigmatising role of rational and disapproving observer (Galasiński, 2008) in relation to their former insulin-restricting actions. Evidence of such distancing constructions can also be found in extract (76). The first indication that this message is about insulin restriction arises in the expression 'So i feel as if my only option is to restrict insulin to lose weight'. This statement initially appears to be somewhat non-committal, for it is implied, through use of the present tense verb 'feel', that this contributor is only just considering restricting (rather than necessarily already restricting) their insulin at the time of writing. However, when this contributor later states that they are 'on day 2 of doing this' we learn that this individual has indeed already restricted their insulin in order to lose weight. And even this declaration is itself shrouded in vagueness and ambiguity, with the inanimate pronoun 'this' (Tang and John, 1999) obscuring direct reference to the precise details of the insulin restricting practices here. Additionally, when the expression 'restrict insulin' does occur, the contributor's agency

is backgrounded and instead seemingly attributed to the temporal aspect of being ‘on day 2’ (‘im on day 2 of doing this’). This contributor’s agency would arguably have been rendered more pronounced had this proposition been expressed, for instance, as ‘I have been restricting insulin for 2 days’, or even ‘I have been doing this for 2 days’.

The vagueness with which the practice of insulin omission/reduction could be constructed in the corpus is a particularly curious trend given the high levels of specialist diabetes knowledge that is often evidenced by people with diabetes and other chronic conditions when communicating in online health-related contexts (Fox, Ward and O'Rourke, 2005). This vagueness is rendered yet more striking when we compare this feature with the general proliferation of biomedical measurement terms in the list of keywords presented in Chapter Four, as well as the tendency for the contributors to be quite precise when providing other details pertaining to their insulin restricting actions. For example, in the corpus extracts above, quite precise details are provided regarding the contributors’ weights (‘ended up losing 40 pounds’, ‘at 125 pounds’ (both 74), ‘I needed to gain 15 pounds after diagnosis and instead despite my efforts ive gained 55. I weigh more than i ever have in my life, 20lbs more than i did when i gave birth!’ (76)) and the lengths of time relating to the onset and duration of diabetes and diabulimia (‘8 years ago’, ‘I did this for probably 4-5 months’ (both 74), ‘when I was teenager, shortly after I started university’, ‘I was hospitalised just over 2yrs ago’ (both 75), ‘I spent the last 6 months depressed and battling suicidal thoughts’, ‘i am on day 2 of doing this’ (both 76)).

The relative precision with which these contributors constructed such bodily and temporal dimensions echoes, somewhat, the findings of research into eating disorder disclosure which reports the tendency for individuals experiencing these conditions to exhibit acute awareness

and precise knowledge of such information as calorie consumption, body mass information, and so forth, when talking about their conditions (Day and Keys, 2008: 82).

Insulin restriction as a form of resistance

The lemmatised lexical verbs displayed in table 14 above lend themselves most naturally, and indeed occur more frequently, in formulations in which the actor (be that the contributor their self or someone else) is cast in a grammatically agentive role (van Leeuwen, 2008). While expressions such as 'not take + insulin', for example, emphasise the absence of a particular action, that is, the absence of the action of taking (at least the correct dosage of) insulin, I would argue that the lemmatised list of lexical verbs displayed in table 14 denote what is broadly the same process, but in terms of actually accomplishing some action, for instance, *skipping*, *stopping* and *reducing* insulin. This particular feature inheres most strikingly in lexical verbs such as *manipulate, fiddle* and *tweak* (table 14) which, I argue, foreground the deliberate and even calculated nature of insulin-restricting actions. As the corpus extracts below demonstrate, such constructions were used both by contributors who did and contributors who did not testify to undertaking such practices themselves.

Extract (77)

Anyway, since I am taking a bunch of premed classes now, I not only get to hear about all of the terrible things that happen with chronic high sugars, but I also learn a lot about cell bio and can use this info to further **manipulate my insulin**. All of this started out as just wanting to drop a few pounds, but now that I have tasted life without diabetes, I just don't want to go back. When I was diagnosed, I just accepted that this was the way it was going to be. I didn't ever consider just not doing it. It feels so good to not obsess over every carb that I put in my body, to not worry about testing, to not have to calculate corrections or meal boluses. Of course, it's not all good. I can tell that this is affecting my concentration and

abilities in my classes. I'm tired all of the time and get heart palpitations and crazy foot/calf cramps often.

Extract (78)

Based on what you have written, it sounds to me that your fiancee's sister has a form of eating disorder which compounds (or is compounded by) her Type 1 diabetes. She found a way to lose weight while eating unhealthy highly refined carb food by **fiddling with her insulin intake**. It's a double whammy for her, as she has no control over her diabetes and has an eating disorder.

Constructions of diabulimia as involving *manipulate[ing]* and *fiddling* with insulin dosage bestow upon such practices an almost experimental quality, conceiving of them as quite deliberate, possibly even calculated. This characteristic is attested, moreover, in extract (77), the contributor of which describes learning 'a lot about cell bio' during premed classes, information that is used to 'further manipulate my insulin'. Insulin restriction is therefore attested here in ways that foreground the elements of knowledge and skill seemingly involved (Knapton, 2013) and seem to stand in stark contrast to those messages examined in the previous chapter in which such practices were constructed as non-volitional and in which those experiencing diabulimia were situated in subject positions with comparatively little to no agency.

The messages featured in extracts (77) and (78) also provide evidence of another theme emergent from examination of the concordance lines containing the lemmas displayed in table 14, specifically the construction of diabulimia as seemingly motivated by a lack of control. In such messages, diabulimia was constructed as offering individuals the very means for resistance against experiences of powerlessness engendered by the relentless demands of diabetes self-management, with diabulimia framed as actually granting individuals some portion of control over their lives in this context. For example, the contributor of the message featured in extract (77) equates diabulimia to relinquishing diabetes itself when they write

‘now that I have tasted life without diabetes, I just don't want to go back. When I was diagnosed, I just accepted that this was the way it was going to be. I didn't ever consider just not doing it. It feels so good to not obsess over every carb that I put in my body, to not worry about testing, to not have to calculate corrections or meal boluses’. In fact, so profound is the powerlessness experienced by this contributor in relation to their diabetes self-management that they seem willing to endure the negative consequences associated with insulin restriction, of which they are evidently aware when writing ‘Of course, it's not all good. I can tell that this is affecting my concentration and abilities in my classes. I'm tired all of the time and get heart palpitations and crazy foot/calf cramps often’. The seeming powerlessness experienced by people with diabetes is also demonstrated, moreover, by extract (78), the contributor of which attests the ‘double whammy’ of experiencing ‘no control over … diabetes’ and having an eating disorder.

As Day and Keys (2008: 82) observe, many scholars writing from a feminist tradition have long argued that disordered eating, by women at least, often results from, and in some cases constitutes a form of, resistance against feminine roles that are characterised by powerlessness, obedience, restraint and self-denial (Eichenbaum and Orbach, 1983). Though it is problematic to apply this same explanation to the above corpus examples, for I cannot confidently assert that any of these contributors are women, I would like to extend the aforementioned argument, but to apply it to the context of chronic disease management. In these messages, and in others across the corpus, insulin manipulation is constructed as providing something of an antidote to the sensations of powerlessness, obedience, restraint and self-denial that are often experienced by people with chronic diseases, including diabetes (Paterson, 2001; Lunney, 2009; Solowiejczyk, 2010). As part of the self-management of their condition, individuals with diabetes are required to exercise a high degree of control and self-

restraint with regard to managing their bodies and what they eat (Peel et al., 2005). By actively undermining these demands and subverting the diabetes management-related expectations placed upon them, these contributors might therefore engage in diabulimia as a form of resistance, not necessarily to gendered expectations (though this is not to deny that these could, and likely do, play a role in the development of diabulimia) but, rather, to the seemingly burdensome expectations that have been placed on them pertaining to the management of their pre-existing chronic illness (Peel et al., 2005). This is a theme that is explored in greater detail in the next chapter and revisited in the discussion which follows it.

Insulin restriction as deviance

Though the majority of the forum messages examined in this study have been deemed to construct diabulimia (and insulin restriction) in medicalising, disease terms, other messages seemed to conceive of insulin restriction as an act of deviance for which individuals could be held responsible, even culpable. Deviance is a complex sociological phenomenon, not least in the ways that it applies to health and illness. Following Clinard and Meier (2011: 6), I interpret deviance as 'a collection of conditions, persons, or acts that society disvalues […], finds offensive […], or condemns.' To some extent, in conceiving of insulin restricting practices as deliberate and even calculated, several of the agency-granting constructions considered earlier in this chapter might be interpreted as drawing on a deviance discourse (Lupton, 1993) to frame diabulimia as something in which individuals actively and knowingly partake. However, such a deviance discourse arguably manifests most explicitly in the lexical verbs ABUSE and MISUSE which feature in table 14. Examining the forum messages in which either of these lemmas occurred alongside the word *insulin,* I observed

that, rather than offer medicalising explanations for the attested insulin restriction (such as those explored in the previous chapter), the contributors of such messages tended to situate such actions within the broader context of diabetes mismanagement (Peel et al. 2005) perhaps implying there to be some relation or at the very least similarity between the two. Examples of such passages are provided in the corpus extracts below.

Extract (79)
I **misuse my insulin** for years, had poor control and never tested. It can get you into a cycle called diabulimia, without realizing it. Not saying that is what you are do or have, but that is what I did. For me, it last from my teens into my thirties. Now am 35, and for the first time have been healthy for the last 4 years, with my diabetes in control, since my diagnosis age age 8.

Extract (80)
My daughter was diagnosed with diabetes at 12 (not a great age with hormones kicking in :( ) and developed "disorded eating" pretty soon after. She is nearly 18 and has been **abusing insulin** ever since. How she has managed to survive until now is beyond belief and is currently taking basal insulin to try and retain some stability. However, she is **still abusing** and has now confided she is taking it 3 days a week Mon,Tue, Wed, and then stopping. She is binge eating thur, fri, sat, sun and running deliberatly with high ketones to get rid of the weight she has put on in those 4 days. She can lose anything up to a stone in a week. :(She has been staying with her father who is in complete denial there is a problem, but we have spent the weekend in tears where I have managed to get her to admit exactly the extent of what she is doing so will obviously be acting immediately. I am currently researching as much as I can to find the support she needs.

The contributor of extract (79) groups together in a single sentence their insulin misuse and purportedly poor diabetes self-management when they write, ‘I misuse my insulin for years, had poor control and never tested’, and seemingly goes on to equate recovery and being ‘healthy’ with having diabetes ‘in control’. Similarly, the contributor of extract (80) expresses their surprise that their daughter, who ‘abuses’ her insulin, is still alive, such is the severity and longevity of her diabetes mismanagement. The contributor of the latter message also notes the deliberate nature of their daughter’s insulin abuse and appropriates a rhetoric of

secrecy (Rhodes, Bernays and Houmoller, 2010), evidenced through lexical choices such as 'confided' ('now **confided** she is taking it 3 days a week') and 'admit' (I have managed to get her to **admit** exactly the extent of what she is doing'), to construct the daughter's actions as not only abusive, but also secretive and, by extension, perhaps shameful.

The construction of diabulimia (or, more precisely, its essential insulin restricting characteristic) as constituting a form deviance, exemplified in the corpus extracts above, can be sharply contrasted against those messages, explored earlier in this and in the previous chapter, in which diabulimia is constructed, in medicalising terms, as a disease. Where the discursive rendering of diabulimia as an illness over which sufferers have little or no control or choice arguably hedges off potential accusations of blame, the characterisation of insulin restriction as a deviant behaviour affords no such reprieve, instead placing the responsibility, and so potential blame, squarely at the feet of the individual (Lupton, 1993).

Insulin restriction as normative

Although the majority of the forum messages examined in this chapter so far have tended to construct the actions of insulin restriction either as disordered or as in some way deviant, this was not the case for all of the messages contained in the corpus. Examining the concordance lines containing the keyword *insulin*, I observed the possibility for diabulimia and its associated insulin restricting practices to actually be constructed as a normal part of effective diabetes self-management. For example, in the forum messages featured in extracts (81) to (83) below, insulin restriction is actually constructed as part of normal diabetes self-management, on the seeming proviso that it occurs in conjunction with the appropriate

reduction of calorie intake (i.e. not restricting insulin dosage to compensate for excessive calorie intake, or 'bingeing' (Littlefield et al., 1992)).

Extract (81)

Tweaking your insulin levels to the amount of carbs you eat takes a bit f trial and error, but I've found it very helpful to keep detailed logs of what you eat, their carb amounts and the amount of insulin taken, in addition to postprandial readings. These can help show you when you've taken too much insulin or not enough for a series of meals and can help you adjust things so that they work out better in the future.

Extract (82)

Now I do not have a magic wand to help with the weight loss but speaking to a dietician or your DSN should help. Things like **lowering your carb intake so that you can lower insulin needs will help with weight loss**. You will also need to exercise (eeeyuck!) but even just walking up and down the stairs at work.school/college should help.

Extract (83)

If someone wants to lose weight with type 1 diabetes it is these days possible to do so - when on a set insulin schedule it is almost impossible, but with carb counting it is very easy to adjust the insulin you take and also therefore your weight. Which means that diabulimia should become less common - it becomes more of an actual eating disorder - like normal bulaemia where you eat a lot and then just don't inject for it - this is crazy since you put yourself at so much risk for other complications. **It is much better to inject the limited insulin but then eat limited carbohydrates**. However it is also not as simple as this as there are things that control how much basal you need and if you can eliminate some of the things that cause insulin resistance in type 1s then the basal rates fall too and you lose even more weight with much better sugar levels as well.

Inspecting these messages, it might even be argued that the contributors do not just construct insulin restriction not only as normative, but actually as part of autonomous and responsible diabetes self-management, that is, as allowing them to fulfil their duties of active and autonomous self-care with respect to their chronic illness. The attested insulin-restricting practices might be interpreted as autonomous in the sense that the contributors have

determined their own insulin dosage, and responsible in that the dosage is adjusted in accordance with carbohydrate intake and postprandial readings.

This discourse of autonomous and responsible diabetes management is also reflected in other parts of these advice-giving sequences, wherein the contributors variously recommend keeping detailed logs of what they eat, carbohydrate consumption, insulin dosage, and postprandial readings (81), consulting practitioners and exercising in conjunction with restricting insulin in order to lose weight (both 82). Moreover, in describing their insulin restriction as being undertaken in conjunction with these other more conventional markers of effective diabetes self-management with a view to 'adjust[ing] things so that they work out better in the future', the message in extract (82) evidences a rhetoric of positively controlling or shaping the future previously observed in individuals' narratives of successful and effective diabetes self-management (Balfe, 2007: 143).

In constructing the practice of insulin restriction as constituting a normative aspect of autonomous and responsible diabetes self-management under certain conditions (i.e. in accordance with reduced calorie and carbohydrate intake), several of the messages contained in the corpus indirectly render insulin restriction undertaken *not* under these conditions as abnormal or disordered (Aphramor and Gingras, 2008). For, as Malson (2008), in the context of weight loss practices reminds us, it is through the very labelling and establishment of certain practices as normal that others (that do not satisfy these criteria) come to be thought of as pathological.

The corpus analysis reported in the foregoing section has identified numerous discourses drawn upon by the forum contributors to construct diabulimia and its essential, central

characteristic of insulin restriction variously as a disorder, an active form of resistance to the burden of diabetes self-management, a deviant or abusive behaviour, and, finally, under certain conditions, as a regular aspect of autonomous and responsible diabetes self-management. Taken together, these widely varied and conflicting ways of discursively constructing diabulimia collectively suggest that the status of diabulimia (or insulin restriction) is not fixed, but rather, it would seem, mirrors its offline contexts, in as much as that it is the subject of constant contest and (re)negotiation to this end.

6.5. Discourses of insulin and weight

The final part of this chapter focuses on the connection between insulin and weight that is discursively forged in the forum messages. The lexical item *weight*, as well as featuring as a keyword in the corpus (see table 3, Chapter Four), also occurs as a frequent left- and right-sided collocate of *insulin*. As a left-sided collocate, *weight* is ranked 16th, occurring within the five words preceding *insulin* on 38 occasions across the corpus (LL score: 112.43). As a right-sided collocate, this word is ranked 1st, occurring within the five words following *insulin* on a total of 72 occasions across the corpus (LL score: 306.48). It is as both a frequent left- and right- sided collocate of *insulin* that the keyword *weight* shall be examined here.

Analysing the concordance lines in which the word *weight* occurs either as left- or right-sided collocate of *insulin*, and following up in particular on the high frequency of *gain* as a right-sided collocate of *insulin* (rank: 12th, f= 22, LL score: 105.86), I observed a tendency for the forum contributors to construct insulin as the cause of weight gain experienced by either themselves or others, as the extracts below demonstrate.

Extract (84)

Im the first in the family to get diabetes, even though I have large family on both sides!! so its not heredrity!! but the main problem is Im battling diabulimia!! I was diagnosed with type 1 diabetes in 2004,,I educated myself very quickly on it through books and Internet, thats when i discovered that **insulin = weight gain**...being your typical weight conscious female aged 20 at the time, I began experimeting adjustng insulin doses, skipping meals,etc...ongoing battle to this day

Extract (85)

That is why we T2 are usually fat, first we get insulin resistant then the pancreas pumps out EXTRA insulin to overcome the resistance now **we have a lot of insulin in our blood and we gain weight. the extra insulin also prevents us from berning the fat**. I saw a study about 20 years ago where they tracked some 500 people. They found that people in the study that became diabetic would suddenly gain about 20 Lb with no change in food or exercise BEFORE being diagnosed as diabetic.

Extract (86)

Whether or not you will gain weight when injecting insulin depends on how sensitive/resistant to insulin you are. Which is why T1s and T2s have different experiences with this. Because T1s generally have normal insulin sensitivity, injecting the stuff doesn't cause weight gain. T2s, because of their insulin resistance, have to inject much more insulin to achieve the desired effect (keep blood glucose down). **And it causes them to gain weight. Insulin isn't called the fat-storeage-hormone for nothing. The higher your insulin levels are (because of insulin resistance), the more likely it is that you will gain weight or have difficulty losing it**.

In constructing diabetes as the cause of unwanted weight gain and its related distress, the contributors of these and other messages in the corpus conceive of the relationship between the self and insulin in problematic terms (Bryden et al., 1999). This recurring trend might constitute a legitimation strategy in the forum messages (van Leeuwen, 2007), where the discursive tendering of insulin as the cause of weight gain allows these and other forum contributors the opportunity to justify, or even to rationalise, their restricting their insulin dosage in order to lose weight on the grounds that this medication is the very thing that has caused their problematic weight gain in the first place.

At the same time, constructing weight gain as a consequence of insulin treatment also arguably offers the forum contributors the opportunity to absolve themselves of any personal culpability that might otherwise be attributed to them in relation to their attested body weight increase (Markula, Burns and Riley, 2008). It is possible that by presenting their attested weight gain as resultant of insulin therapy, these and other forum contributors are able to positively present themselves as being disciplined and controlled with regard to their bodies and diabetes self-management. This is because the weight gain described in these messages is constructed not as resulting from poor self-control (in the form of calorie over-consumption and lack of exercise) but, quite conversely, actually from the fulfilment of the responsibilities and duties encoded within neoliberal, individualised models of diabetes self-management, through their undergoing insulin therapy (Peel et al., 2005). This positive self-representation is re-enforced in extract (84), the contributor of which testifies as having educated their self on the connection between insulin intake and weight gain through books and online resources. Similarly, the contributor of extract (85) cites the results of a study to support the claim that insulin intake induces weight gain.

Additionally, the contributors of extracts (85) and (86) both draw on distinctly biomedical discourse to explain the biological processes involved in insulin-induced weight gain, in these cases attributed to excess insulin production by the pancreas and the differences between the biological consequences of type 1 and type 2 diabetes. In drawing on such biomedical discourse, both directly and indirectly, these and other forum contributors arguably appropriate what van Leeuwen (2007) terms the ‘authority of expertise’, to legitimise and scientifically validate the – as we shall see, contested – claim that insulin intake induces weight gain. The adoption of such proto-professional discourse (de Swaan, 1990) also allows these contributors to cast themselves, once more, in the knowledgeable and responsible role

of expert patient (Fox, Ward and O'Rourke, 2005), and to simultaneously distance themselves from popular cultural conceptions of people with eating and purging disorders as immoral, stupid or irresponsible (Rich, 2006; Saguy and Gruys, 2010; Easter, 2012).

Examining concordance lines containing both the keywords *insulin* and *weight*, I also observed the tendency for contributors to construct attested weight gain as resultant of insulin therapy in rather precise detail, usually providing measurements, as in the corpus extracts below.

> **Extract (87)**
> I'm so ashamed to admit this but yes, I have done this many many times before I went onto the pump. I was and still am very critical about my weight. **A few pounds gained gets me upset but when I gained nearly 30 lbs when I went on insulin I went nuts**. I would never do such a thing these days.
>
> **Extract (88)**
> **I've gained 30lbs in the past two months being on insulin** and it's incredibly difficult to break the cycle.
>
> **Extract (89)**
> Is it really more difficult to lose weight when you're on insulin than for non-d people? I've heard this before, but I have no experience. I was skinny as a rail **by the time they put me on insulin 5 years ago, and I gained about 5 pounds in the first few months. Well, over the past year, since i got off of the EVIL mixed insulin and got my b/s under control I've gained another 5**...and at 5 ft tall these 10 pounds ain't looking so hot! So I just want to know FOR REAL, if this is going to be some major uphill battle, or if it's really no different that before D.

The contributors of the messages featured in these extracts would appear to conceive of their bodies in statistical ways, adopting what Potter, Wetherell and Chitty (1991: 333) describe as a 'quantification rhetoric' in order to construct their understandings of themselves and their bodies in measurable and quantifiable ways, broadly reflecting a penchant observed in

biomedical discourse surrounding health, disease and the body (Shilling, 2005: 26; Lupton, 2016). In contrast to the vagueness with which the amounts of insulin restricted are frequently described in the forum messages (a feature of the corpus data identified earlier in this chapter), the relative precision with which the amounts of weight *gained* as a result of adherent insulin therapy are described in messages featured in the corpus perhaps reflects more closely the proclivity, reported elsewhere, for individuals with eating disorders to formulate various aspects of their experiences of their condition in precise detail (Day and Keys, 2008). The dissatisfaction with the attested amounts gained and the resultant body weight seems, moreover, to accord with the long observed connection between disordered eating behaviours and body dissatisfaction (Burns and Gavey, 2008; Malson and Burns, 2009; Wade and Tiggemann, 2013).

Earlier in this chapter I interpreted the tendency for the forum contributors to construct the process of insulin restriction in generally vague terms as constituting a strategy of discursive obscuration, adopted by the forum contributors possibly in an effort to conceal or at the very least background the precise details of, what in deliberate insulin restriction, might be interpreted in these online contexts as disordered actions, in order to avert potentially stigmatising responses and to protect their face needs. However, it might be that in describing the amounts of weight gained through insulin therapy in such precise detail, as in extracts (87) to (89) above, some of the contributors are able to emphasise and render more tangible and incontrovertible the amounts of weight that they have gained, so as to further legitimise what, in insulin restriction, might otherwise be perceived as an extreme countermeasure to the attested weight gain (Rabinow and Rose, 2006).

The connection between insulin therapy and weight gain was not, however, accepted ubiquitously in the messages contained in the corpus. Indeed, as the corpus extracts below demonstrate, it was also possible for the forum contributors to problematize, and in many cases overtly challenge, the assertion that insulin intake causes body weight gain.

Extract (90)
I'm quite certain that both times I've gained weight it wasn't the insulin, but the fact that my body was actually getting more food than with no, or too little insulin. **I don't believe insulin in itself causes weight gain at all**. when I was first put on insulin I had been eating everything in sight for months and months, and losing weight like crazy...I must confess that I would have enjoyed that freedom if I hadn't been so sick! But eating like that was a hard habit to break.

Extract (91)
Hospitals sometimes give insulin to non-diabetic patients to induce appetite and weight gain. It works. **I don't believe insulin needs to cause weight gain**, but a cycle of too much insulin followed by increased caloric intake will lead to weight gain.

Extract (92)
The part insulin plays in weight gain is where **insulin has not been carefully matched to carb intake or basal requirements**.

The contributors of the messages featured above appear to take issue with the notion that the weight gain attested by other forum members has resulted from insulin treatment per se, with these contributors seeming to suggest that such weight gain was instead more likely to have resulted from poor diabetes self-management, specifically where insulin dosage had not been suitably matched to calorie intake. For example, the contributor of extract (91) suggests that any insulin-related weight gain is likely to have resulted from ‘a cycle of too much insulin followed by increased caloric intake’, while the contributor of extract (92) proposes that insulin intake causes weight gain when ‘insulin has not been carefully matched to carb intake or basal requirements’. However, that these assertions are carefully hedged – pre-modified by expressions of tempering modality (e.g. ‘I’m quite certain that’ (90) and ‘I don’t believe’ (90

and 91) is likely reflective of the uncertain and, as we have seen, contested status of this assumption in this context.

Rather than construct weight gain as an unfortunate, ill-fated consequence of adherent insulin therapy – as in the messages considered earlier in this section – these (and other) contributors actually challenge this notion, instead suggesting that instances of weight gain attested in other messages are likely to have resulted from the inadequate monitoring of insulin dosage in accordance with calorie intake. Though it is problematic to speculate as to the precise motivations underlying such constructions, their logical extension is that it is therefore the individual their self, rather than their adherence to the insulin regimen, that has caused weight gain. Accordingly, these messages can be interpreted as appropriating an individualist, responsibilising discourse of chronic disease (mis)management (Galvin, 2002) in the ways that responsibility and blame is apportioned to others contributing in these fora with regard to their weight gain. This feature of the forum messages is not only testament to the significance of such responsibilising frameworks in the ways that individuals understand and communicate about chronic illnesses, particularly diabetes (Broom and Whittaker, 2004; Peel et al., 2005; Hunt and Koteyko, 2015), but echoes, moreover, the broader penchant for weight gain and overweight to be conceived of as the responsibility or fault of the individual in Western societies (Guttman and Ressler, 2001; Markula, Burns and Riley, 2008; Lupton 2013).

6.6. Chapter summary

Through close examination of the keyword *insulin*, the corpus analysis presented in this chapter has revealed a great deal about how the discourses surrounding this conceptually and statistically central concept feature within the broader construction of diabulimia in the forum messages. This emerged as a site of significant discursive struggle, with diabulimia's most essential practice of insulin restriction constructed, often in conceptually vague and distancing terms, variously as a marker deviance, as a form of resistance to the pressures brought about by diabetes, and even as a normative part of diabetes self-management. In a similarly contestable vein, insulin could both be constructed as something that was and was not a cause of body weight gain, where in the latter case the attested weight gains were frequently attributed to broader poor diabetes self-management, as opposed to insulin intake per se. The possible motivations for and consequences of these various discourses, along with their contribution to the broader construction of diabulimia, will be explored in Chapter Eight.

7. Diabetes, eating disorders and control

7.1. Introduction

This final analytical chapter explores the third theme identified through keyword categorisation in the fourth chapter, diabetes, specifically by examining how the keyword *diabetes* is used in the forum messages contained in the corpus. Utilising the corpus procedures of collocation and concordance to interrogate this keyword within its more expansive textual contexts, the analysis explores the discourses surrounding the relationship between diabetes and eating disorders and the discourses relating to the concept of control, which both featured prominently in messages containing this keyword. As in the previous chapter, to situate the forthcoming analysis within the study's overall concerns, special attention is paid to how the discourses surrounding the theme of diabetes feature within the broader discursive constructions of diabulimia in this context.

7.2. Diabetes-related keywords

The salience of the theme of diabetes across the forum messages was signalled by a plethora of keywords derived from the DFC introduced in Chapter Four. The keywords that correspond to this broad theme in the forum messages are reproduced in table 15, below.

Table 15: Diabetes-related keywords in the DFC ranked in order of keyness

	Word	Frequency	%	Keyness
1	diabetes	328	0.27	3159.70
2	dka	72	0.06	967.71
3	diabetic	117	0.10	910.91
4	bg	72	0.06	779.80
5	sugars	68	0.06	642.97
6	complications	83	0.07	560.93
7	diabetics	63	0.05	527.31
8	diagnosed	72	0.06	484.66
9	control	217	0.18	426.32
10	glucose	60	0.05	400.23
11	type	168	0.14	384.89
12	sugar	92	0.08	372.22
13	blood	127	0.11	359.66
14	lows	30	0.02	280.49
15	brittle	39	0.03	253.70
16	low	132	0.11	233.77
17	ketones	19	0.02	227.82
18	dwed	14	0.01	188.16
19	cgms	13	0.01	174.72
20	hypo	20	0.02	173.12
21	retinopathy	19	0.02	166.73
22	bc	35	0.03	166.15
23	dx'd	12	<0.01	161.28
24	bgl	14	0.01	157.39
25	dl	18	0.01	149.04
26	bgl's	11	<0.01	147.84
27	hypos	11	<0.01	147.84
28	neuropathy	18	0.01	133.98
29	dx	15	0.01	125.81
30	bg's	10	<0.01	123.59
31	high	152	0.13	122.97

The large quantity of diabetes-related keywords generated by the corpus software (31; the most of any group) is perhaps to be expected, given that all of the messages contained in the DFC were sampled from diabetes fora, as well as that having concomitant and pre-existing insulin-dependent diabetes is a requisite component for one to experience diabulimia in the first place. Nonetheless, the sheer quantity of keywords in the above table still attests the

centrality of the theme of diabetes in the forum messages contained in the corpus. Owing to limitations of space, it is not possible for me to produce a fine-grain examination of all of these diabetes-related keywords. Therefore, the analysis in this chapter shall focus on the most frequent and "key" of these words, specifically the word *diabetes* itself. By dint of both of its salience (indicated by its keyness) and its direct lexical relation to the topic of diabetes, this keyword should afford a promising lexical avenue through which to explore how the discourses surrounding the theme of diabetes in the forum messages contribute to the broader discursive construction of diabulimia in this context.

7.3. Collocates of *diabetes*

As in previous chapters, in order to identify and subsequently interrogate the potential discourses surrounding this keyword in the corpus, I examined *diabetes* in relation to its more expansive textual surroundings, a view of the data afforded by the more qualitative corpus measures of collocation and concordance. To ensure that the analysis accounted for the fullest possible range of discourses surrounding the theme of diabetes, the spelling of this keyword was standardised throughout the data prior to these corpus procedures being carried out. Consequently, the misspelling *diabetese* (n= 1) was corrected, resulting in a revised frequency of *diabetes* of 329. Once more, to produce a more detailed collocational profile of this keyword, its left- and right- sided collocates were generated separately (Harvey, 2012). The collocation procedure yielded a total 157 left-sided and 150 right-sided collocates for *diabetes*, a complete list of which can be found in the CD-ROM enclosed in Appendix A. For the utility of analysis, I once again focus on only the top 20 left- and right- sided collocates, which are displayed in table 16, below.

Table 16: Top 20 left- and right- sided collocates of *diabetes*, freq. ≥5, ranked by LL score

	Left-sided collocates			Right-sided collocates		
	Word	**Freq.**	**LL**	**Word**	**Freq.**	**LL**
1	with	56	251.49	and	63	144.68
2	my	60	230.13	I	67	123.98
3	of	53	162.05	a	42	86.08
4	type	25	156.31	is	34	83.32
5	the	55	115.72	UK	9	70.62
6	and	49	89.50	control	14	62.91
7	have	26	64.27	in	26	61.93
8	to	43	59.31	to	41	53.35
9	her	18	50.47	eating	13	47.09
10	your	19	48.71	the	34	43.11
11	behavioral	5	48.50	was	19	42.62
12	hair	8	46.66	for	19	35.52
13	brittle	7	46.20	disorders	6	34.96
14	control	11	44.12	my	20	34.67
15	managing	5	41.79	as	14	31.80
16	disorder	9	40.33	care	7	29.75
17	about	14	40.22	this	15	29.72
18	http	6	38.62	so	13	27.70
19	www	6	38.62	you	22	27.53
20	top	5	37.24	has	9	26.98

Three of the collocates displayed in the above table (*control*, *brittle* and *care*), all of which appear also as keywords, relate to the topic of diabetes (mis)management and so potentially provide evidence of the significance of this topic to the ways that diabulimia-related experiences and understandings are constructed throughout the corpus. Other collocates displayed in this table suggest the possibility of other themes surrounding the keyword *diabetes* in the corpus, including words ostensibly relating to eating (*eating*) and disorders (*disorder* and *disorders*) (two themes which, as the forthcoming analysis will demonstrate, overlap in the forum messages). The left-sided collocate *type* features overwhelmingly in the formulations 'type 1 (or one) diabetes' (n= 16) and 'type 2 diabetes' (n= 5), while the left-sided collocate *behavioral* consistently features as part of the fixed expression, 'Behavioral

diabetes institute'. The right-sided collocate *UK* features either in reference to the diabetes charity 'Diabetes UK' (n= 7) or as part of a website URL (n= 2), as do the left-sided collocates *http* and *www*. The personal pronouns, *my* (left and right), *her* (left), *your* (left), *I* (right) and *you* (right) attest the interpersonal nature of the interactions contained in the corpus and provide further evidence of the proclivity for the contributors to discursively construct their experiences and understandings of diabetes and diabulimia from their own subjective perspectives (Harvey, 2013: 174-175).

The collocates displayed above propose a number of promising lexical entry points through which to examine the discourses surrounding diabetes in the corpus; entry points which, pursued in closer detail through the prism of concordance, are also likely to provide insight into how these discourses feature in the broader discursive construction of diabulimia in this context. Guided by these collocates, the corpus analysis presented in this chapter first examines the discourses surrounding diabetes and eating disorders, before proceeding to explore the discourses surrounding diabetes control, with a particular focus on how the discourses surrounding these particular themes feature in the broader discursive construction of diabulimia in the corpus.

7.4. Discourses of diabetes and eating disorders

In this part of the analysis I explore the link between diabetes and eating disorders, considering, in particular, the ways in which the discourses that surround and are signalled by this link contribute to the overall discursive construction of diabulimia in the corpus. The frequent left-sided collocate, *disorder* (LL score: 40.33) occurs within the five words

preceding *diabetes* on 9 occasions throughout the corpus, while its plural form *disorders* features as a right-sided collocate of *diabetes* on 6 occasions (LL score: 34.96). Additionally, the word *eating* occurs as a left-sided collocate of *diabetes* 13 times (LL score: 47.09).

Examining the concordance lines containing the keyword *diabetes* alongside the collocates *disorder*, *disorders* and/or *eating*, I observed a tendency for diabetes to be conceived of as a condition that heightens susceptibility to eating disorders, including, and in some cases specifically, diabulimia, as the corpus extracts below demonstrate.

Extract (93)
Based on what you have written, it sounds to me that your fiancee's sister has a form of **eating disorder which compounds (or is compounded by) her Type 1 diabetes**. She found a way to lose weight while eating unhealthy highly refined carb food by fiddling with her insulin intake. It's a double whammy for her, as she has no control over her **diabetes and has an eating disorder**.

Extract (94)
I told my endo back in the 80's that having **type 1 diabetes makes you ripe for an eating disorder** (bingeing & purging was my specialty). She looked at me and said, "You just don't let it control you." Funny, that's just what they tell women in eating disorder programs.

Extract (95)
i get scared, but don't know how to help myslef, there is only one person who knows i do this, and she can't tell anyone. i think the girl who said she felt that **all the food watching, weighing, and worrying involved in diabetes can trigger latent anorexia**, may be right. and lastly, i want ya'll to know this is NOT only an issue with the young, i am 44.

Extract (96)
This doesn't shock me at all. The beginning of **my eating disorder started probably around a year before my diabetes diagnosis**, i then suffered from anorexia, but mainly bulimia from age 17-21. I think **diabetes played a part in me developing a fully blown eating disorder**. i felt very restricted in what i could eat, felt guilty for eating something 'bad'.

In these extracts diabetes is variously constructed as ‘compounding’, ‘making ripe’, ‘trigger[ing]’ and ‘play[ing] a part in’ the development of eating disorders. In two of the above messages, (95) and (96), this heightened susceptibility is attributed, explicitly and quite precisely, to the demands of diabetes self-management. The contributor of the message featured in extract (95) appears to corroborate the view of another contributor when writing ‘i think the girl who said she felt that all the food watching, weighing, and worrying involved in diabetes can trigger latent anorexia, may be right’, while the contributor of the message in extract (96) writes, ‘i felt very restricted in what i could eat, felt guilty for eating something ‘bad’.

Yet the relationship between diabetes and the development of eating disorders is perhaps even more complex still, for in extracts (95) and (96) the role of diabetes as causal (or at the very least contributory) in the development of an eating disorder is slightly problematized. Rather than just being proffered as the precise cause of eating disorders, diabetes could also be framed as potentially triggering in people, or as bringing to the surface, pre-existing eating disordered tendencies. The contributor of extract (95), for instance, echoes the views of another contributor when they propose that the ‘food watching, weighing, and worrying’ involved in diabetes management can ‘**trigger latent** anorexia’; where the verb ‘trigger’ suggests the activation, rather than the creation, of a pre-existent, dormant anorexia. Additionally, the adjective ‘latent’ supports this notion by conceiving of anorexia as pre-existent and hidden in this case, insidiously lying in wait before being ‘triggered’ by the attested pressures of and emotional difficulties induced by the demands of diabetes self-management. This sentiment is shared by the contributor of the message featured in extract (96), who describes experiencing bulimia and anorexia up to one year **prior to** diabetes diagnosis. However, and interestingly, this contributor contrasts these eating disorders with

that which followed diabetes diagnosis, which is described as a 'fully blown eating disorder', of which diabetes is attributed to playing a part in the development. In this message, diabetes diagnosis is therefore constructed once more as a kind of trigger that seemingly compounds pre-existing eating disordered tendencies (in this case making them 'fully blown').

The idea that the development of eating disorders is induced by the dietary restraints necessitated by diabetes self-management – a theme prevalent in the above and other messages contained in the corpus – is one shared by Goebel-Fabbri (2008: 530), who observes that,

> [i]t may be that the current goals of intensive diabetes management increase the risk for developing an eating disorder. Some researchers argue that the attention to food portions (especially carbohydrates), blood sugars, weight, and exercise that comprises the standard recommended medical treatment for type 1 diabetes parallels the rigid thinking about food and body image that is characteristic of women who have eating disorders but do not have diabetes.

Another noteworthy characteristic of the above messages is the construction of the person experiencing an eating disorder in complex agentive terms. In extract (93) the person experiencing diabulimia is described as actively having 'found a way to lose weight while eating unhealthy highly refined carb food by fiddling with her insulin intake', where the lexical verbs 'found' and 'fiddling [with]', processes in which the referent is the active agent, arguably conceive of the attested disordered actions as quite deliberate. A consequence of this construction is that the person experiencing diabulimia (i.e. the referent of the message) is, in deliberately restrticting their insulin dosage, framed as actively using, even exploiting, the

weight loss opportunities afforded to them by the biological consequences of their pre-existing diabetes. Yet, by describing the would-be dual-diagnosis of diabulimia (if one could receive one) and diabetes as a 'double whammy' in the very next sentence, this contributor seems to equate diabulimia with the powerlessness of the experience of chronic illness (in particular, diabetes), thereby drawing on what I interpret to be a victim discourse (Drew, Dobson and Stam, 1999) to potentially absolve the referent of responsibility with regard to the development of their eating disorder.

Similarly, the contributor of the message in extract (94) describes their own previous bingeing and purging as their 'specialty', a construction which appears, on first impression, to conceive of the attested eating disordered behaviour as a kind of skill (Knapton, 2013), in which this contributor had seemingly accomplished some level expertise. However, reading on, this statement would appear to be ironic, with the contributor proceeding to derisively reflect upon a practitioner's recommendation that they should not let diabetes 'control' them, moreover likening the sensation of powerlessness and lacking control associated with eating disorders to that experienced in relation to diabetes, writing 'She [the practitioner] looked at me and said, "You just don't let it control you." Funny, that's just what they tell women in eating disorder programs'. The construction of individuals with co-existing diabetes and eating disorders (including diabulimia) as victims of their dual diagnosis could be interpreted as a face-saving strategy (Goffman, 1955) in this context, since framing the person with diabulimia (or another eating disorder) as a victim of their dual diagnosis arguably reduces some of the blame and stigma that frequently attends to eating and purging disorders (Stewart, Keel and Schiavo, 2006). The face-saving logic of such constructions follows that if it is the chronic illness (i.e. diabetes) that contributes to the development of eating disorders (including diabulimia), then the affected individual cannot be held personally accountable.

Examining further the concordance lines surrounding the keyword *diabetes*, I observed a series of other messages in the corpus which, although established a similar link between diabetes and a heightened susceptibility to the development of eating disorders, did so quite differently, constructing the individuals concerned not as victims of circumstance, but, rather, as in some way exploiting or taking advantage of the weight loss opportunities afforded to them by their diabetes (or, more specifically, the mismanagement of it), evidenced in the corpus extracts below.

Extract (97)
Unfortunately your daughter has **discovered a very powerful tool in abusing her diabetes** - very high BGLs (achieved by not taking insulin or enough insulin) = rapid loss, but then = DKA.

Extract (98)
She definitely is **taking advantage of the fact that her diabetes doesn't allow her body to fully metabolize the massive amounts of food she eats by manipulating the amount of insulin she gives herself to remain thin**, and progressively get thinner. When we go to restaurants she usually eats 3 times or more food than anyone else would even think about eating, and yet she keeps getting thinner and thinner, and more disgustingly thin.

Extract (99)
As for gaining weight on insulin...well, I struggled with anorexia (not diabulimia, but still body and trust issues) and have been freaking out over the increase in my insulin needs as I've been put on hormones to correct everything I'm messing up by being underweight. I haven't gained an ounce from just insulin so far, and **my nutritionist and I agreed that "low-carbing" would just be using my diabetes as an excuse to kindle my anorexic, restrictive tendencies**.

Extract (100)
Me too i have been there and am a bit further down the road...stopping has enabled me to have a wonderful family and regain my life...seemed so hard to believe at the time. **Diabetes adds another edge to it..to get over one food obsession, only to have another need for food to be the center of your life is a cruel slap in the face (and often times i felt a deserved one)..**this topic alone could have it's own chat room.

Though the increased susceptibility of developing an eating disorder alongside diabetes is acknowledged in these messages, it seems fair to surmise that these passages do not exhibit the same kind of victim discourse identified in the forum messages analysed in the previous section. Instead, I would argue that in these messages the person with co-occurring diabetes and an eating disorder (which includes diabulimia) is constructed variously as deviant, manipulative and perhaps even naïve. For example, in extract (97), the person experiencing diabulimia (another contributor's daughter) is described, in agentive terms, as having '**discovered a very powerful tool** in **abusing** her diabetes'. While I do not wish to spend too much time re-visiting the significance of the lexical choice 'abusing' (see section 6.4 of Chapter Six), I would argue this term to potentially carry connotations of deviancy, in this case framing the person with diabulimia as actively exploiting the weight loss opportunities granted to them through mismanagement of their diabetes (which is metaphorised here as a 'tool'), rather than presenting the diabetes management regime as burdensome or as rendering the affected individual as powerless, as in those messages examined in the previous section. Similarly, the contributor of the message featured in extract (98) describes a person experiencing diabulimia as '**taking advantage** of the fact that her diabetes doesn't allow her body to fully metabolize the massive amounts of food she eats by manipulating the amount of insulin she gives herself to remain thin, and progressively get thinner'. Moreover, the contributor of extract (99), although disclosing personal experiences relating to anorexia rather than diabulimia, replicates a similar discourse when providing an account of an interaction with their nutritionist, in which both the contributor and the practitioner 'agreed that "low-carbing" would just be using my diabetes as an excuse to kindle my anorexic, restrictive tendencies'.

To some extent, the message contained in extract (100) might be interpreted as echoing the kinds of victim discourses explored earlier in this section, for this contributor likens diabetes management to an eating disorder in terms of both being an all-encompassing 'food obsession' that sits at the 'center of your life', going on to describe the dual-diagnosis of diabetes and an eating disorder as a 'cruel slap in the face' for sufferers. However, all this is rather sharply undercut, or at the very least problematized, when this contributor then proceeds to qualify this metaphorical 'slap in the face' as 'a deserved one'; a curious comment, the implication of which is that the referent (in this case the contributor their self) is deserving of punishment, presumably in view of the role that they have played in their eating disordered tendencies.

The extracts presented above therefore provide evidence for a significant counter discourse to that which frames people with diabulimia and other eating disorders as victims of their increased susceptibility to developing such disorders, brought about by the dietary restraint necessitated by diabetes self-management. By contrast, in these messages the person experiencing the eating disorder, be that diabulimia or any other, is conceived of in comparatively more agentive terms (van Leeuwen, 2008), sometimes as taking advantage of the weight loss opportunities afforded to them by the biological consequences of their pre-existing diabetes, through the deliberate mismanagement of their chronic illness.

7.5. Discourses of control

This part of the analysis focuses on the discourses of control, as I interpret them, which are drawn upon by the forum contributors when constructing their subjective experiences and

understandings of diabetes and diabulimia. My rationale for exploring this theme is that it is salient in the forum messages contained in the corpus in two main respects. First, the lexical item *control* features amongst the most "key", and so amongst the most statistically salient, keywords in the corpus (rank: 42, frequency: 217, LL: 426.32). Second, control is widely understood to be a salient concept with regard both to the self-management of chronic illnesses, particularly diabetes (Broom and Whittaker, 2004; Peel et al., 2005; Naemiratch and Manderson, 2006), as well as subjective experiences of eating and purging disorders (Neumark-Sztainer et al., 2006; Burns and Gavey, 2008; Evans et al., 2008) and so should provide an interesting theme to pursue in my examination of the discourses surrounding diabulimia, as a condition that might be considered to sit at the intersection of diabetes and eating/purging disorders.

Through examination of the concordance lines containing the keyword *control* both on its own and as a left- and/or right- sided collocate of *diabetes*, it emerged that the concept of control was drawn upon in relation to diabetes and in the broader construction of diabulimia in two ways. Broadly speaking, diabulimia was variously constructed either as constituting a lack of control in those affected by it, or, conversely, as something that actually granted those individuals a degree of control over their diabetes and their lives more generally. The remainder of the analysis in this chapter is dedicated to exploring these two ways of constructing diabulimia in the corpus, what I will refer to as discourses of control.

Diabulimia as a lack of control

Throughout the corpus, the keyword *control* took on a distinctly biomedical tone, used frequently across the forum messages in reference to diabetes management in terms of controlling diabetes and the body, including blood glucose, diet, calorie intake and so forth, in accordance with a practitioner-determined diabetes self-management regime. As such, diabulimia and other "disordered" practices were frequently equated to a lack of or poor control on the part of the affected individual, while not engaging in such actions was constructed as having or being in control of one's diabetes, as the corpus extracts below demonstrate.

> **Extract (101)**
> Many of the regulars here have **great control so diabulimia is out of the question**.
>
> **Extract (102)**
> I wish I had willpower to achieve the same, but with my **eatng habits out of control, my diabetes out of control** my last result was 14.6% I feel like a failure!! Im now attending counselling to battle my food demons, so hopefully I'll be on the road to recovery and **get both the diabetes and eating disorder under control!!!**
>
> **Extract (103)**
> Sometimes, I look at the big picture and it's just so huge, scary and overwhelming and like I said before, I **still don't have perfect control**. But, instead, I try and take it on a day by day, sometimes an hour by hour approach. If I mess up, I accept I've done so and move on and try again.

In these extracts, not having an eating disorder (including diabulimia) is equated with having positive control, with such individuals described as actually 'having' control (101) or having an illness 'under' control (102). This kind of control is also evaluated positively in these messages, for example as 'great' (101) and 'perfect' (103). Similarly, in extract (102),

diabulimia is judged to be ‘out of the question’ amongst the members of the particular forum to which this message was posted, on the basis that its regular contributors have ‘great control’. I would argue such constructions to draw on a broader neoliberal discourse of body and general health maintenance, wherein exhibiting control is deemed to be a positive attribute that typically takes on a broader significance in societies, where it is equated with being a “good” and “responsible” citizen (Lupton, 1995, Petersen and Lupton, 1997; Brown and Baker, 2012).

Such constructions also draw, moreover, quite directly on a neoliberal discourse of chronic illness management, according to which affected individuals are personally responsibilised (Burchell, 1993) into managing their illnesses to the extent that they are held personally culpable when things go wrong and ill-health occurs as a result of disease mismanagement (Galvin, 2002). For instance, the contributor of extract (102) laments their lack of control over their eating and diabetes, citing their lack of ‘willpower’ which causes them to ‘feel like a failure’. Tellingly, the level of control that this contributor exhibits over their diabetes is self-judged to be inadequate in accordance with the biomedical measurement of glycaemic control (Bray and Colebrook, 1998), expressed here as a percentage figure of 14.6%. In this very same message, this contributor also demonstrates their desire to (re)harness control, attesting to having attended counselling sessions in order to ‘get both the diabetes and eating disorder under control’. Similarly, the contributor of extract (103), though not seemingly as self-condemnatory in their message, nonetheless appropriates the same neoliberal discourse of diabetes self-management when equating not having ‘perfect’ control with ‘mess[ing] up’; a responsibilising construction which locates the duty of effective diabetes management and ‘control’ firmly with the individual experiencing the condition, in this case, the contributor

their self, who also assumes responsibility – or in this case, blame – when things go wrong (Gomersall, Madill and Summers, 2011).

Examining the concordance lines surrounding the keyword *control*, I also observed the potential for this concept to take on an even greater significance in many of the contributors' lives. In such constructions, having diabulimia, as well as other eating disorders, was equated to having a lack of control not only of diabetes, but also of one's life more generally, as exemplified in the corpus extracts below.

Extract (104)
I've been saying I wish I could be committed for years because I **feel so out of control** :(I've got DWED on Facebook, I hope that this group helps to get this problem better recognised in the medical profession.

Extract (105)
I'm glad you're **taking back control of your life, your eating disorder and your diabetes**.

Extract (106)
You start by thinking that you are in control and can stop whenever you want to but before you realise what has happened **you have been stripped of all control and the eating disorder seems to take control of your life and won't stop at anything**.

Such is the apparent significance of control in many of the forum contributors' lives that, in the above messages, having diabulimia is equated with 'feel[ing] so out of control' (104), while recovery from an eating disorder is equated to taking back control of the eating disorder itself, of diabetes and, perhaps most significantly, of 'life' (105).

The message reproduced in extract (106) contains three separate references to the keyword *control*, all of which testify different, but apparently sequential, stages of experiencing an

eating disorder, in this case diabulimia. This contributor attests to 'start[ing] by thinking that you are in control', but then to having been 'stripped of all control' by the eating disorder, which ultimately 'take[s] control of your life and won't stop at anything'. The ultimate lack of control experienced by the diabulimia sufferer and attested in this message is rendered all the more striking by the anthropomorphisation of diabulimia as an agentive and oppressive force (Kleine, 1994), that 'strip[s]' the sufferer of control, 'takes' control, and 'won't stop at anything'. As well as providing further evidence that individuals with diabulimia (and other eating disorders) often experience an acute sense of powerlessness with regard to their condition – a theme emergent in the analysis in Chapter Five – this discourse also reflects moreover the quite profound influence of responsibilising neoliberal frameworks on the conceptualisation of health and chronic illness management in Western societies (Lupton, 1995).

Diabulimia grants control

An alternative discourse to that explored in the previous section emerged in messages where the contributors actually constructed diabulimia as a means for harnessing control over various aspects of their lives, including their diabetes. For instance, in the corpus extracts below, diabulimia is constructed as a means for people to control their weight.

Extract (107)
Your daughter has worked out how to harness the power of insulin, or rather the lack of it, to help her **control her weight**. I'm certain she's bright enough to realise the lasting damage she will do to her body without insulin.

Extract (108)

My hba1c went from 8 to 11 but I felt fine so I kept abusing **the power I had to control my weight**. I dread the thoughts of putting on weight.

Extract (109)
Possibly for the first time in my life **I feel I can control my weight**, losing steadily and then reach a point where I can maintain the weight.

Twice in the above messages, diabulimia, or at least the weight loss potential that it affords, is explicitly formulated as power, described in extract (107) as the '**power** of insulin, or rather the lack of it' and in extract (108) as the '**power** I had to control my weight'. Such messages suggest that some of the forum contributors experienced, or at the very least perceived, diabulimia as empowering, in the above cases, enabling individuals to assume control over their bodies (Balfe, 2007).

As well as affording individuals a measure of control over their body weight, the seeming empowering properties of diabulimia could also take on a broader significance in the forum messages, constructed as a means for individuals to take control over their lives more generally, typically where pre-existing diabetes, or more specifically the demands of the diabetes self-management imperative, was perceived to have in some way taken this away.

Extract (110)
We are burdened with an incurable condition and anything which gives us **some degree of control over it** can be abused without the right sort of long term care.

Extract (111)
What some people dont seam to understand is that **it feels like you dont have control of your life** (I know this sounds strange to anyone reading it) you are constantly at the beck and call of your insulin and sometime you do forget (during stressfull times) I promice you it will get better but its not going to happen overnight.

Speaking in quite general terms, the contributor of the message featured in extract (110) characterises the experience of diabetes as being 'burdened' with an 'incurable condition' and goes on to suggest that diabulimia (or more specifically the weight loss induced by not taking the prescribed amount of insulin) gives people 'some degree of control' over diabetes (though it is worth noting that despite this seemingly empowering discourse, this contributor nonetheless constructs diabulimia as deviance ('abused') and also suggests that diabulimia might result from inadequate long term care). Furthermore, the contributor of extract (111), again in seeming general terms, describes not having control of 'your life' due to the constant demands of diabetes self-management, that is, the 'beck and call of your insulin'. This discourse, of diabetes as burdensome and even controlling (or at least as depriving individuals of control over their own lives), echoes the findings of existing discourse-based research into subjective accounts of diabetes and chronic illnesses more broadly (Charmaz, 1991; Gibson and Kenrick, 1998; Peel et al., 2005).

In three of the forum messages containing the keyword *control*, extracts from which are reproduced below, the attested lack of control was attributed not to the demands of diabetes self-management, but rather to the role of family members who were perceived as controlling, either over the contributors themselves or other forum members who were the target of the advice-giving passage.

Extract (112)

Thanks, yeah, I'm actually going home this weekend to visit my family, and I'm still debating if I want to break it to them. Lately there was a lot of issues going on with my schooling and living situation. And my parents kept praising me for being so responsible and mature about dealing with everything, and I don't want to shatter this image they have of me now. Like, when ever I would have my really bad episodes and would end up in dka they assumed that it was just me being irresponsible. Now if I was to tell them that I let that happen, that I made it happen? I'm pretty sure they would loose trust in me. They would support me no

matter what but **they would try to control every aspect of my diabulimia recovery**. **Part of my issues in the first place is being able to actually control something in my own life**.

Extract (113)

In addition, it may help to talk about your relationship with your mother and it may even be related in someway to how you are feeling now. **Perhaps you are feeling controlled by her and this is one way to exert your independence and control something in your life....** Not saying that is what it is but you may be surprised at what you find out about yourself and in the end, you may find positive ways to live your own life under your rules with being happy and satisfied at the same time.'

Extract (114)

I think you are dealing with **larger issue relating to freedom and control**. I think you really want to be someone who can stand on their own two feet and take responsibility for yourself - and not managing your diabetes is to some extent demonstrating you're trying to make a break with your childhood condition.

The contributor of the message contained in extract (112) describes 'a lot of issues' relating to their school and living situation, and expresses the fear that disclosing difficulties in their personal life would 'shatter the image' of them being 'responsible and mature and dealing with everything' and result in their family 'try[ing] to control every aspect of my diabulimia recovery'. This contributor then concludes their message by proffering a lack of control over things in their life as a motive for, or at least a factor in the development of, diabulimia in the first place, when they write, '[p]art of my issues in the first place is being able to actually control something in my own life'. Issues with familial control are also evident in extracts (113) and (114), both of which were taken from messages occurring within the same thread and written in response to the same earlier message posted to it. The contributor of extract (113) suggests to the author of said message that they might be 'feeling controlled by her [i.e. their mother]' and that 'this [diabulimia] is one way to exert your independence and control something in your life'. Likewise, the contributor of extract (114), responding to the same

message, interprets the attested diabulimia as relating to ‘larger issue[s] relating to freedom and control’, and as constituting a means for that contributor to demonstrate how they can ‘stand on their own two feet and take responsibility for [themselves]’ by ‘trying to make a break with [their] childhood condition’ (by adhering, once more, to the neoliberal ideal of chronic disease self-management).

Common to all three of these messages is the construction of control as something that is possessed by someone other than the person experiencing diabulimia. Accordingly, diabulimia is constructed, once more, as a means for individuals to take control of their own lives, in that such practices, although on some occasions openly acknowledged to be disordered or in some other way deviant, are frequently framed as a means for individuals to take responsibility for the management (or even mismanagement) of their diabetes and to display autonomy, as they are implored to do so by the neoliberal imperatives of diabetes self-management (Peel et al., 2005).

7.6. Chapter summary

By closely examining the keyword *diabetes*, the analysis presented in this chapter has revealed a great deal about how the discourses surrounding this conceptually and statistically central concept feature within the broader construction of diabulimia in the corpus data. The first half of this chapter explored the discursive connection between diabetes and eating disorders (which included diabulimia). By constructing people with diabetes (who were often themselves) as experiencing heightened susceptibility to diabulimia and other eating disorders, many of the contributors were able to avert some of the potential stigma and blame

that regularly attends to such conditions. The second half of this chapter focused on the keyword *control*, as it occurred when collocating with diabetes. This turned out to be a topic for discursive contest, with the contributors constructing diabulimia variously as something that signalled a lack of control on the part of the sufferer, but also as something that could, quite conversely, actually grant sufferers some degree of control, both over their chronic illness and their lives more generally. The possible motivations for, and consequences of, these various discourses are explored in more detail in Chapter Eight.

8. Discussion: towards an understanding of medicalisation and neoliberalism in the discursive construction of diabulimia

8.1. Introduction

This study is the first of its kind to examine diabulimia from a discursive perspective. Taking a corpus linguistic approach to discourse analysis, the foregone chapters have explored the discourses drawn upon by the contributors to three diabetes internet fora when constructing diabulimia in their messages. These chapters were structured according to the inter-connected, and to some extent overlapping, themes of diabulimia, insulin and diabetes, each of which afforded unique thematic perspectives on, and lexical entry points through which to explore, the discursive construction of diabulimia in this context. This synthesis of thematic and lexical perspectives has produced an analysis that has proven to be revealing not only of the discourses surrounding diabulimia, but also, perhaps somewhat inevitably, of those discourses upon which the forum contributors drew to construct their subjective experiences and understandings of diabetes, too.

The discursive construction of diabulimia in these online fora has been revealed as deeply multifaceted and richly complex, imbued with issues of morality, agency, responsibility and stigma. Moreover, the multiplicity and fluidity of the discourses identified throughout the analysis, and their contestation and (re)negotiation across the corpus has provided evidence that the fora represented in the DFC are sites of discursive contest and struggle (Chouliaraki and Fairclough, 1999). Consequently, the ways that the discourses identified and examined contribute to the overall construction of diabulimia in this context are not fixed, but likely in constant flux: drawn upon by the forum contributors in inconsistent and sometimes

conflicting ways, to accomplish particular macro-level representational, and micro-level interactional, objectives. Rather than review these various discourses and their possible motivations and potential consequences, and risk merely repeating significant sections of the preceding corpus analysis, the ensuing discussion focuses on two factors that I interpret as having shaped significantly the ways that diabulimia is discursively constructed in the forum messages: the sociocultural process of medicalisation and the neoliberal imperative of diabetes self-management.

8.2. The medicalisation of diabulimia online

As a brief reminder, medicalisation can be thought of as the sociocultural process whereby ordinary aspects of life become defined in medical terms, described using medical language, understood through a medical framework, or "treated" through medical intervention (Conrad, 1992: 211). The increasing medicalisation of society, as observed by Conrad (2007), has partly resulted from advances in diagnostic tools and refinements in understanding of the human body and its ailments, but also reflects the concomitantly ever-expanding remit of medical pathology to incorporate formerly non-clinical problems and other natural aspects of life. Research has highlighted the medicalisation of numerous aspects of social life, including childbirth (Johanson, Newburn and Macfarlane, 2002), shyness (Scott, 2006) and infertility (Becker and Nachtigall, 1992), to offer just a few examples.

According to Conrad and Schneider (1980), medicalisation can occur at the macro-, meso- and micro- levels. The distinction between these levels is described clearly and quite succinctly by Gabe (2013: 49), when he writes, '[m]acro-level actors include medical

researchers and journals, governments and national organizations and the meso level would include local organizations, while doctor-patient interaction concerns mainly micro-level actors'. Halfmann (2011) contends that medicalisation can occur at all three of these levels. Miah and Rich (2008: 70) point out that medicalisation is not the preserve of medical authorities and institutions, but can also be characterised by attempts by non-experts to construct notions health, illness and the body using biomedical perspectives. It is the medicalisation of diabulimia at this level – i.e. by non-experts, including people with first-hand experience of it – that this study is best placed to access and examine the medicalisation of deliberate insulin restriction as "diabulimia" in online fora.

The ever-widening remit of medicalisation has been observed to have far-reaching consequences for how both experts and non-experts come to conceptualise and communicate about various aspects of their very being, which are defined increasingly according to 'medical criteria of normality and pathology' (Rose, 2007: 700; see also: Moynihan et al., 2002; Conrad, 2007; Rose, 2007). At various points throughout the foregoing analysis, I have interpreted diabulimia to be constructed by the forum contributors in ways that, rather than normalises their own and others' subjective experiences of this health phenomenon, instead pathologised these, constructing them through decidedly medicalising discourses. A considerable portion of the forum messages examined throughout this study have been found to exhibit discourses that befit Conrad's (1992) taxonomy, in as much as they constructed diabulimia using medical terminology, through a medical framework and as something about which the contributors either had themselves sought, or implored others to seek, advice and treatment from a medical practitioner (1992: 211).

Firstly, despite its lacking medical recognition, the nomenclature *diabulimia* can itself be said to exhibit a quite profound influence of medical terminology in terms of morphological formation, which comprises two existing, legitimate disease labels: **dia**betes and **bulimia**. To label particular experiences or behaviours as 'diabulimia' or 'diabulimic', as do the contributors of the forum messages examined here, might therefore be interpreted as an attempt to discursively situate the particular experiences and behaviours attested, linguistically and ontologically speaking, within medical frameworks for understanding and communication.

Evidence of medicalising constructions of diabulimia was found not just in the formulation of this particular disease label, but also in the broader discourses that surround it in the forum messages. For example, the corpus analysis presented in Chapter Five revealed the propensity for the forum contributors to construct diabulimia in distancing terms, lexicalising it as an objective, clearly bounded clinical phenomenon (Harvey, 2012), for instance as 'the diabulimia'. Such formulations were interpreted as aligning with the ontology of diseases as discernible and discrete, as detached from the sufferer (Cassell, 1976; Fleischman, 1999; Davies, Knol and Turner, 2011). The analysis in this particular chapter also brought to the surface a number of messages that drew quite explicitly upon biomedical concepts, interpreting aspects of individuals' attested experiences of diabulimia in terms of a diagnostic discourse which alluded to its causes and symptoms. Moreover, diabulimia was also routinely described, and so classified by the contributors, as a *disorder*, a *mental disorder* and an *eating disorder*, in the latter case also regularly discussed alongside, and in some cases conflated with, medically recognised eating disorders, such as anorexia and bulimia. The analysis in this particular chapter also explored a series of messages, the contributors of which attempted to establish diagnostic criteria for diabulimia, in so doing drawing quite explicitly on medical

language to discuss its 'symptoms', 'signs' and 'warning signs'. In some messages the contributors were also observed to determine the severity and prototypically of the attested symptoms, thereby subjecting them to the kind of symptom classification that is routinely made by medical practitioners. So dominant was this way of constructing experiences (i.e, as symptoms) that even on those occasions when diabulimia "diagnoses" were questioned and even refuted – pivotal moments at which the medicalised status of diabulimia was called into question, indeed threatened – these refutations seemed to be made on the grounds that the reported "symptoms" did not fit with the diagnostic criteria established in these and presumably other online contexts, rather than being due to diabulimia's contested and controversial disease status.

A further instantiation of medicalising discourse was identified in the tendency, observed at numerous points throughout the analysis, for the forum contributors to construct the person experiencing diabulimia in relatively agency-constraining or agency-limiting terms, mirroring, somewhat, the convention within Western medicine for patients to be construed as passive in their involvement in illness and disease. This discourse inhered most strikingly in the agency metaphors identified in Chapter Five, where it was revealed that the forum contributors frequently constructed experiences of diabulimia using agency-limiting metaphors, for instance characterising diabulimia as a violent actor capable of inflicting suffering on those experiencing it. In similarly agency-limiting terms, many of the contributors also employed journey metaphors to construct their own and others' experiences of diabulimia as being similar to having one's movement in some way restricted or obstructed.

Finally, although the fora that I have examined serve as platforms for the giving and seeking of health-related advice and, consequently, for the assumption of the role of 'expert patient' by many of the forum contributors, some messages also featured implorations directed at other forum users to pursue medical assistance, for example from GPs, to treat their diabulimia. This said, it is also worth bearing in mind, as Hunt (2013) points out, that participation in self-help platforms, such as the internet fora examined in this study, might itself constitute a proactive effort on the part of the forum members to manage their diabulimia-related difficulties outside of traditional clinical interventions.

At the surface level, the tendency for the forum contributors to draw on medicalising discourses to construct diabulimia in their messages might be interpreted as reflecting the growing tendency for emotional distress and other aspects of everyday life to be talked about and conceived of in medicalising terms (Williams, Gabe and Davis, 2009: 1). However, beyond this explanation, a considerable body of research related to the topic of medicalisation weaves a more complex tapestry concerning the motivations underlying, and consequences arising from, this social phenomenon. In the main, this literature has tended to offer a largely negative and condemnatory critique of medicalisation, interpreting it chiefly as a means for Western medicine to expand its ever-widening scope and growing authority into increasingly obscurer aspects of life (Conrad, 2007), paving the way, in turn, for the pharmaceutical industry to capitalise on the increasing pathologisation of often routine and natural behaviours, embodied experiences and other aspects of day-to-day life in order to peddle its products and maximise its profits (Moynihan et al., 2002). However, medicalisation has been regarded more favourably by others, who recognise the potential for this process to bring about more positive outcomes for people experiencing distress that might not otherwise be taken as seriously, or worse still neglected entirely, when it comes to developing and

advancing medical interventions targeted at addressing that particular health concern and improving those individuals' health and lives more generally (Broom, 1996).

In acknowledgement of these contrasting positions, Conrad argues the process of medicalisation to have both positive and negative consequences for those experiencing the particular phenomenon or embodied experience in question, what he refers to as the "dark" and "light" sides of medicalisation (Conrad, 2007). I now explore the positive and negative potential outcomes of the medicalising discourses identified in my data and consider some of the possible motivations for the forum contributors' drawing on them when constructing diabulimia in their messages. Rather than attempt to provide an exhaustive and overly-speculative account of these issues (though I do admit that some speculation is involved), the focus of this section will be necessarily selective and restricted to those potential motivations and consequences that I interpret to be most pertinent to the case of diabulimia.

Though the social process of medicalisation has tended to be regarded negatively and critically in the research literature dedicated to this topic, there is, as mentioned earlier in this section, evidence that medicalisation can actually bear significant clinical and symbolic benefits for those experiencing the particular health concern in question (Miah and Rich, 2008: 70). Exploring the potential benefits of medicalisation might offer some indication as to why many of the contributors featured in this study drew upon medicalising discourses to construct diabulimia in their messages (Rose, 2007).

First, given the profuseness of medicalising discourses across the DFC, it seems reasonable to suppose that medical frameworks for understanding and communicating about the body and its ailments afford the forum contributors a useful, or at the very least convenient, means for

disclosing their health-related experiences and concerns. English is, after all, a language that has been widely observed to lack, somewhat, in adequate descriptors for experiences of mental distress and other non-physical, or at least non-observable, emotions and experiences (Kleinman, 1988). It might therefore be the case that the language of medicine affords individuals experiencing diabulimia the most effective or accessible linguistic means with which to articulate, comprehend, and generally render more cohesive, their otherwise unexplainable, perhaps even chaotic, thoughts, actions and experiences (Harvey, 2012: 372). A possible related explanation is that this feature of the forum messages reflects the general pervasiveness and taken-for-granted status of the medical perspective which presently dominates the discourse surrounding health and illness in Western societies (Conrad, 2007).

An appealing potential outcome of the medicalising discourses explicated throughout this study is that the emotionally challenging and even debilitating diabulimia-related experiences constructed might be taken more seriously and treated with greater urgency, particularly by health care providers, practitioners and policy-makers, when they are discursively rendered in medical terminology (Moynihan et al., 2002). To define a problematic or distressing set of experiences in medical terms, as an illness, is to deem those experiences appropriate for medical attention – a process which opens up opportunities for the alleviation of the attested experiences or "symptoms" (Gwyn, 2002: 101-103; Gabe, 2013: 51-52). As Conrad (2007: 147-148) writes, '[o]n the medical side, many of us know individuals whose life has been significantly improved by psychoactive medications, who are no longer depressed, disoriented, or disordered thanks to medical interventions'. This consideration seems particularly apt in the case of diabulimia, given the desire of many people affected by this health phenomenon to see it gain medical recognition as a disease, evidenced by ongoing public campaigning to this end, as well as the expression of this desire in some of the forum

messages contained in the corpus. Accordingly, to those experiencing diabulimia, particularly those seeking to obtain medical treatment and support, medicalising their experiences and distress in the ways identified in the preceding corpus analysis might therefore present a step towards receiving the due medical care and attention, or at least recognition of their suffering, that they desire.

Another probable motivation underlying the recourse to medicalising discourses observed in the forum data is the possibility that the resultant medicalisation of diabulimia could alleviate some of the stigma and censure that might otherwise attend to admissions of deliberately restricting one's insulin dosage in the contexts of diabetes fora (Conrad and Schneider, 1980). A good example of this is offered by Gabe (2013), who considers how people experiencing "drinking problems" might have benefited from the medicalisation of alcoholism because it potentially allows them to 'counteract attributions of blame and moral weakness' (2013: 51-52). The formulation of diabulimia-related experiences in medicalising terms might therefore present to some of the forum contributors the opportunity to alleviate some of the (perceived) stigma they suffer (remember, diabulimia was, after all, framed as deviant and constituting poor and irresponsible diabetes self-management in some of the corpus messages) by verbally construing such experiences as non-volitional, beyond their control and so as ultimately not their fault.

The foregoing discussion has outlined some of the potentially positive consequences of the medicalisation of diabulimia in the forum messages examined in this study; potential outcomes that I have, in turn, interpreted as constituting possible motivations for the contributors' very drawing on such medicalising discourses so extensively in their messages. However, medicalisation does, as Conrad (2007) reminds us, also have a "dark" side. One

oft-cited negative potential consequence of medicalisation is that this process can render the individuals experiencing the particular health phenomenon in question effectively passive, to the point that they become over-reliant on medical intervention and uncritical in the face of the ever-expanding jurisdiction of modern medicine (Gabe, 2013: 52). Of course, domination by medical experts isn't always a necessarily bad thing, particularly in cases where affected individuals are not capable of remedying their ailments themselves (White, 2002: 51). However, the prospect of having other, and maybe all, aspects of life dominated by medical professionals, particularly where these do not traditionally belong within the domain of medical concern, is likely to be a significantly less attractive proposition to most people. On the evidence of the DFC, this consideration seems relevant to the case of diabulimia in particular, given that some of the contributors to the fora represented in the corpus expressed distress at experiencing a lack of control regarding the management of their diabetes and lives more generally, in some cases citing this as a cause of their actually developing diabulimia in the first place.

A further consequence of the contributors' drawing on medicalising discourses to construct diabulimia in this online context is that the biomedical perspective propagated by these discourses is likely to pathologise the individuals affected by diabulimia, rather than challenge or call into question the broader socio-cultural forces that might have led to their suffering in the first place. As Hunt (2013: 42-43) observes, 'medical science and contemporary health care privilege certain conceptualisations of disease over others […] historically these conceptualisations have underrepresented social-cultural aspects of patients' lives or attempted to resituate them within personal psychology, a process that has led to long-standing accusations of explanatory reductionism'. Such deficiency models might therefore serve to locate the cause of diabulimia within the individuals and risk obscuring the

influence of wider cultural concerns and other external factors, including the neoliberal imperative of diabetes self-management (a theme explored in the second half of this chapter). Indeed, while the forum messages frequently made reference to medical concepts to describe and explain diabulimia, including in some cases characterising it as having a biological aetiology, there was comparatively limited explicit exploration of the broader socio-cultural forces potentially underlying this health phenomenon. Although discussion of such forces was not elided completely, for some of the contributors openly proposed the demands of diabetes management and strained relationships with practitioners and family members as the cause of their own and others' diabulimia, such explanations were considerably less pervasive as compared to the medicalising discourses identified elsewhere in the corpus, which tended to provide relatively depoliticised explanations of distress (Conrad, 1992; Barker, 2008).

Medicalisation is a gradual, ongoing and even reversible process (Conrad, 1992), and subcultures, groups and individuals can 'vary in their readiness to apply, accept or reject a medicalised definition' (Conrad, 1992: 211; see also Gwyn, 2002: 7; Halfmann, 2011). Accordingly, though medicalisation is total for some health phenomena, others remain the subject of competing definitions and conceptualisations (Gabe, 2013: 50). Although medicalising constructions were frequent in the DFC, not all of the messages in the corpus constructed diabulimia in equally medicalising terms. Testament, perhaps, to its controversial and contested medical status, a considerable minority of the forum contributors instead drew upon alternative discourses which conceived of diabulimia as deviant (Chapters Six and Seven), as a normative part of diabetes management (Chapter Six), and as an active form of resistance to the neoliberal, responsibilising imperative of diabetes self-management (Chapters Six and Seven). Since demedicalisation can only occur once the phenomenon in

question is widely defined in medical terms and is 'treated' using medical treatments (Conrad, 1992: 224-225), as a contested condition which has at no point satisfied either of these criteria, diabulimia cannot, according to Conrad's definition at least, be considered to have been fully medicalised and thus cannot be demedicalised (see also: Conrad and Schneider, 1980: 77). However, such messages do, at the very least, signal the presence of alternatives to those medicalising discourses observed at other points across the analysis.

It must be acknowledged that any meaningful evaluation of the extent to which diabulimia has been medicalised would necessitate a broader and deeper examination of this socio-cultural process, as it manifests in (or is accomplished through) discourses evident across the macro-, meso- and micro- levels introduced earlier. As such, as a study whose insights are based on a relatively restricted kind of dataset that accounts for discourses primarily at the micro-level, it remains beyond the scope of this discussion to assess fully the degree to which diabulimia can be considered to have been medicalised. However, based on the corpus evidence that I have examined, it does appear that medicalising discourses play a significant role in shaping how diabulimia was constructed by individuals interacting in the micro-level context of online diabetes fora.

Perhaps reflecting diabulimia's unstable, contested, medical status, the contributors of the messages examined in this study collectively drew upon a variety of medicalising and seemingly de-medicalising discourses to construct it in their messages. The continuing (and by no means settled) negotiation of the medical status of diabulimia in this context provides further evidence of the capacity for so-called "lay" individuals to play a significant role in the development, establishment, promotion and challenging of medicalising ways of understanding and communicating about health and illness, with the context of peer-to-peer

health-related fora emerging, in this and other studies (Barker, 2008; Miah and Rich, 2008; Hunt, 2013), as a prime site for the negotiation and re-negotiation of such meanings. Possible implications and recommendations for health care practitioners arising out of this discussion are considered in the next chapter. In the final and forthcoming half of this chapter I discuss the second, broad, socio-cultural issue that I interpret to have shaped significantly the discourses surrounding diabulimia in the DFC, that is, the neoliberal imperative of diabetes self-management.

8.3. Diabulimia and the neoliberal imperative of diabetes self-management

Recent times have witnessed a movement towards a responsibilising, neoliberal model of public health that presently dominates in many Western societies (Lupton, 1995). The logic behind this approach dictates that rates of illness will be reduced if individuals can be persuaded to practise self-care, that is, to modify their lifestyles in accordance with healthy living advice and thereby exert control over their bodies (Lupton, 1995; Petersen and Lupton, 1997; Brown and Baker, 2012). The individual is accordingly responsibilised (Burchell, 1993) into accessing relevant expert health information and proactively managing their health risks in order to reduce the demands that ill health place on the state and its welfare provision (Brown and Baker, 2012). As Hunt and Koteyko (2015: 2) put it, 'neoliberalism […] configures notions of responsible citizenship in relation to health, with accountability for health devolved from the government to the level of the self-governing, responsible and enterprising individual' (see also: Rose, 2007). A corollary of this individualist stance is to absolve governments of responsibility towards the health of their populations (Inthorn and Boyce, 2010, 84), for when ill health does occur, it is instead the individual who is blamed

and sometimes subjected to acute social stigma as a consequence (Donahue and McGuire, 1995).

The neoliberal imperatives that imbue notions of health have quite profound implications for individuals experiencing chronic illnesses, not least diabetes. These individuals are implored to take responsibility for and to actively self-manage their condition in accordance with medical advice (Hunt and Koteyko, 2015). The influence of neoliberal frameworks on diabetes management is surmised by Naemiratch and Manderson (2006: 1148) thus: 'from a clinical perspective, control of diabetes is relatively unproblematic: patients are advised to modify their diet, exercise regularly, lose weight if overweight, and if indicated, take medication orally or insulin by injection to ensure glycaemic control (that is, blood glucose levels are maintained at an acceptable level)' (see also: Galvin, 2002; Broom and Whittaker, 2004; Balfe, 2007). I will now consider the ways that I interpret this responsibilising, neoliberal imperative to have shaped how diabulimia is discursively constructed in the forum messages analysed in this study.

As a condition characterised by the deliberate reduction or omission of insulin dosage, diabulimia was, rather unsurprisingly, frequently constructed by the forum contributors as constituting somewhat of a violation of the neoliberal imperative of diabetes self-management. Such constructions were observed to have a strong moral component, with those experiencing diabulimia frequently rendered, in rather negative and potentially stigmatising terms, as deviant, irresponsible and out of control, not only of their diabetes but also of their lives more generally (Naemiratch and Manderson, 2006: 1153). This feature of the messages can be interpreted as reflecting the broader penchant for diabetes control to be framed as a moral duty (Balfe, 2007: 146), where failure at the fulfilment of which can result

in one being negatively evaluated as "bad" or deviant (Gomersall, Madill and Summers, 2011: 13). Yet, it is also important to bear in mind that this negative evaluative discourse was not the preserve of those who claimed to manage their diabetes "properly", in accordance with practitioner advice, but was also, on occasion, drawn upon by contributors who ostensibly identified as having diabulimia to negatively evaluate their own diabetes self-management, proving evidence for the seeming influence and pervasiveness of this neoliberal imperative with regard to the ways that both diabulimia and diabetes were conceptualised and discussed in this context.

The next implication of this neoliberal ideology can be considered to be something of a consequence of the first. Specifically, the corpus analysis elucidated the tendency for the forum contributors to continually attest the ways that they fulfilled this neoliberal ideal with respect to the management of their diabetes, even when they identified as experiencing diabulimia. This positive self-presentation was a two-part process. First, it involved constructing the self as experiencing diabulimia against one's volition. For example, many of the contributors cast themselves as non-agentive with respect to their diabulimia and/or disclosed about diabulimia and their insulin restricting actions in typically vague and distancing terms. Second, as well as presenting themselves as unwillingly (and in some cases, unwittingly) experiencing diabulimia, the corpus analysis also revealed a proclivity for the forum contributors to foreground, and construct themselves as more agentive with respect to, what might be perceived as more positive and less stigmatising aspects of the diabulimia illness experience, such as attempts at recovery and being knowledgeable with regard to their pre-existing and co-occurring diabetes. By presenting themselves as actually fulfilling their responsibilities for their diabetes self-management *in spite of* their experiencing diabulimia, these forum contributors might be able to ensure that the emotions, experiences and concerns

they disclose are not conflated with, or simply dismissed as, "bad" diabetes management (Balfe, 2007), in turn avoiding the threat of stigma and accusations of moral failure that would likely follow (Galvin, 2002: 112).

Some of the forum contributors, though seeming to align still with the neoliberal ideal of the diabetic who effectively and autonomously managed their diabetes, did so in a quite different way, by actually constructing diabulimia and its associated practices as constituting a part of their diabetes self-management (see Chapters Six and Seven). Such constructions would imply there to be some perceived overlap between pathologised and therapeutically intended regimes of diabetes and weight self-management (Burns and Gavey, 2008). A similar conflation of disordered and normative weight and bodily practices has been observed in the discourse surrounding eating disorders, for instance by Malson (2008: 35-36), who proposes that the neoliberal ideals of weight monitoring and maintenance are enacted par excellence by anorexia, which is characterised by a hyper-disciplined micro-management of the body and body weight in particular. This argument might be extendable to the case of diabulimia, for the intense concerns about, and attempts to manage, body weight expressed by numerous of the forum contributors, and which would appear to sit at the heart of the diabulimia experience, might be interpreted as enacting 'par excellence', to borrow Malson's (2008: 35-36) formulation, the kind of body weight maintenance that is necessitated by the neoliberal imperative of responsible diabetes self-management. Such overlap has been observed elsewhere, for instance by Paterson, Thorne and Dewis (1998), who argue that accomplishing or at least performing autonomy and expertise, as per the requirements of neoliberal frameworks of diabetes self-management, can involve active experimentation with diet, activity and medication. It would seem, therefore, that the practices associated with diabulimia constitute a series of culturally available techniques not only or simply for body

weight management, but also, in some cases, for autonomously managing one's diabetes. Though these practices are frequently distanced from and subjected to stigmatising constructions in the forum messages examined here, they also have the potential to be drawn upon by the forum contributors for the discursive production of healthy and responsible diabetic selves.

Though some of the contributors of the messages featured in the corpus constructed diabulimia and its associated practices as part of normative diabetes self-management, others did not align with this neoliberal framework, expressing, instead, openly negative experiences of and attitudes towards it. In some cases, this involved establishing a direct causal link between the demands of diabetes self-management and the development of diabulimia. Diabulimia could also be constructed as a means through which individuals were able to actively resist and break from this seemingly burdensome neoliberal imperative. This finding is consistent with those of existing studies which report individuals with chronic diseases to experience their illness, often diabetes, as interrupting or even taking over the routines of their normal lives (Charmaz, 1991; Paterson, Thorne and Dewis, 1998; Rayman and Ellison, 2004), in view of which Goldman and Maclean (1998: 747) characterise diabetes as an 'assault on one's self'.

The foregoing discussion has considered the profound and complex influence that the neoliberal imperatives of diabetes self-management can have on the discourses on which individuals draw to construct their subjective experiences and understandings both of diabulimia and diabetes, as evidenced through the examination of the DFC. Such is the complexity of this influence that individuals experiencing diabulimia could be discursively constructed, or construct themselves, at once as being "bad" for failing their responsibilities

to effectively manage their diabetes in accordance with medical advice, or alternatively as actually fulfilling such obligations not only despite, but in some cases actually *through*, their restricting their insulin dosage. Notable also was the way in which oppressive experiences of this neoliberal imperative could be framed as rendering people with diabetes as more susceptible to developing eating disorders, including diabulimia, with such experiences offered, in some cases quite explicitly, as the very cause of diabulimia development in the first place. Taken together, the varying ways in which the diabulimia accounts analysed in this study interacted with and drew upon neoliberal discourses of diabetes self-management might suggest that people with diabetes can experience these responsibilising demands in varying ways in relation to their lives experiences and understandings of their chronic illness (Ingadottir and Halldorsdottir, 2008).

In light of the foregoing discussion, and the corpus analysis that has preceded it, I would like to propose that individuals experiencing diabetes, but in particular diabulimia, are subjected to a double-bind by the demands of the neoliberal imperative of diabetes self-management, by which such demands can at once be the cause of diabulimia (and its related suffering and distress), yet at the same time give rise to and motivate the stigma and censure that surrounds diabulimia, framing it as signalling a kind of moral failure on the part of the affected individual. The potential implications and recommendations for health care practitioners arising out of this discussion are considered in the next chapter.

9. Conclusion

9.1. Introduction

This concluding chapter will reflect on the methodological underpinnings of the present study and consider the possible implications of the findings reported. It begins by outlining the key findings of the corpus analysis, pointing out what these have revealed about the discourses that surround diabulimia in the context of internet health fora. The second part of the chapter then offers a brief reflection on what these findings might reveal about the internet, and internet fora in particular, as an avenue for the discursive construction of health, illness and disease. Woven into these reflections are considerations of the possible implications that the reported corpus findings might have for researchers and health care practitioners who are likely to engage with people experiencing diabulimia in the future. I will then offer a series of methodological reflections, considering in particular the utility and suitability of corpus linguistics as a methodology for meeting the aims set out at the beginning of this thesis. The final part of this chapter extends the preceding methodological discussion but focuses on the possible limitations of the study design more broadly, in turn flagging up areas for exploration in research on this topic in the future.

9.2. Summary of findings

This study is the first of its kind to interrogate the discourses surrounding diabulimia. It has accomplished this by examining the discourses upon which individuals draw when

constructing this health phenomenon in the context online forum interactions, as represented by a small and specialised purpose-built corpus. By focusing on individuals' subjective constructions of their own (and others') lived experiences and understandings of diabulimia, this study constitutes a well-timed, and in my view much-needed, alternative to the limited positivistic research (Nicolson, 1995) currently available on this topic. By scrutinising the communicative routines of individuals constructing diabulimia from their own subjective perspectives, this study has been able to garner a deeper, indeed novel, set of insights into the social and lived dynamics of this health phenomenon, including individuals' lived experiences and understandings of it.

This study adopted an eclectic approach to explore the discourses surrounding diabulimia from three thematic and lexical vantage points – diabulimia, insulin and diabetes – each of which yielded nuanced and complementary insights into the forum messages contained in the corpus. The discussion that took place in Chapter Eight then argued the various discourses identified throughout the analysis to have been shaped by medicalisation and the neoliberal imperative of diabetes self-management. I do not doubt that there are other important social forces at work in shaping the discourses surrounding diabulimia, both more broadly and in the messages contained in my corpus. However, these particular social phenomena were explored in greater detail because I interpreted them to play a particularly significant role in the forum messages I analysed.

The preceding corpus analysis has revealed the forum messages contained in the DFC to be replete with medicalising discourses. Not only is the word *diabulimia* itself a portmanteau comprising two medical disease labels, but the discourses surrounding this nomenclature in the forum messages variously framed diabulimia as a discrete and countable disease entity,

rendered and evaluated it through decidedly diagnostic vocabulary, classified it as a mental (eating) disorder and positioned those experiencing it in typically non-volitional and agency-limiting roles. In the previous chapter I explored what I interpreted to be the positive and negative potential consequences of such medicalising discourses for those experiencing diabulimia. In that discussion I regarded the positive consequences of medicalisation as potential motivations for the forum contributors' drawing on medicalising discourses in their messages. I argued that, as well as possibly signalling the broader, increasing pervasiveness of medicalisation in society (Conrad, 2007), such medicalising discourses might also offer those experiencing diabulimia (and even those who do not) a useful set of linguistic and conceptual resources with which to comprehend and render cohesive diabulimia-related experiences and distress, to ensure that the attested distress is regarded with due seriousness by others, as well as to reduce the stigma and censure surrounding diabulimia.

I acknowledge that having linguistically regarded diabulimia as a disease in my linguistic treatment of it (including appropriating the nomenclature *diabulimia* itself), I might be seen to be contributing further to medicalisation of diabulimia here. Although this is a debate that will ultimately, and rightly, be resolved elsewhere, the general consistency with which the forum contributors drew upon medicalising discourses in their messages would suggest that these individuals find some value in adopting this perspective when articulating their understandings and experiences of this health phenomenon. It is important for health care practitioners to be sensitive to and to respect the potentially therapeutic and de-stigmatising benefits of such medicalising concepualisations, even if they are themselves unlikely to draw upon them in their own communication.

However, despite its potential benefits, health care practitioners should also be mindful of the possible negative consequences of medicalising discourses for people experiencing diabulimia, in particular the potential for this perspective to individualise and pathologise experiences of diabulimia to the extent that the significance of social and environmental factors might be downplayed or elided altogether. This concern is particularly relevant in the case of diabulimia, where social concerns such as fractious relationships with practitioners and relatives, problems experienced at school, and the burden of diabetes self-management all emerged as significant factors motivating deliberate insulin restriction across the forum messages examined here. When attempting to determine the possible cause of diabulimia (or what might be perceived as diabetes mismanagement more broadly), it therefore behoves health care practitioners, and researchers for that matter, to explore the possible role of such external, social and environmental factors.

Though undoubtedly prominent, medicalising discourses were not drawn upon ubiquitously by the forum contributors featured in my dataset, but my analysis uncovered the presence of alternative discourses that were different from, and in many cases even challenged, this medicalising perspective. As such, it is also important for health care practitioners to be aware that diabulimia can be conceived of as a form of deviance, as well as an active form of resistance against the demands and expectations associated with diabetes self-management.

In terms of the neoliberal imperative of diabetes self-management, this study also found that what practitioners will likely regard as relatively straightforward or routine demands of self-care were interpreted and drawn upon by the forum contributors in nuanced and inconsistent ways. Such is the seeming complexity and inconsistency of these demands in the ways they figured in the diabulimia-related messages that I argued people experiencing diabulimia to be

subject to a kind of double-bind, according to which the neoliberal imperative of diabetes self-management can at once cause diabulimia, yet at the same time give rise to and motivate the stigma and censure that surrounds it. With all this in mind, it would seem that potentially scathing and value-laden judgements about people with diabetes who restrict their insulin as "lacking control" or being "non-adherent" (Ingadottir and Halldorsdottir, 2008: 615) are likely to be at best overly simplistic and at worst deeply stigmatising.

Moreover, the inconsistent (and often negative) ways in which the forum contributors were observed to interact with the neoliberal notion of individualised chronic illness management also gives cause to question the usefulness of such a framework for promoting healthy and contented attitudes in people with diabetes towards their condition and their bodies and health more generally. It falls beyond the scope of this study to motivate change on such broad a scale, mainly because I am neither qualified to recommend an alternative, nor even certain of what the best solution to this challenge is. Interesting discussions are both emergent and ongoing in this area, with authors of recent articles proposing what seems to be me to be a promising notion of partnership, as opposed to complete 'ownership', of diabetes by either patient or practitioner (Anderson and Funnell, 2000; Gallant, Beaulieu, and Carnevale, 2002; Ingadottir and Halldorsdottir, 2008). Accordingly, the present study adds to calls for health care practitioners to endeavour to develop diabetes care and management plans more collaboratively with their patients with the aim of ensuring that patients are comfortable with, and feel able to meet adequately, the demands of disease self-management placed on them (Nyhlin, Lithner and Norberg, 1987; Callaghan and Williams, 1994; Paterson, Thorne and Dewis: 60). However, I also acknowledge that such a bespoke level of diabetes care is likely to pose a significant challenge to increasingly over-burdened practitioners working within this area of health care provision.

9.3. Reflections on health-related internet fora

The sheer volume of messages posted to the internet fora featured in the DFC and examined over the course of this study provides further evidence of the value of these online settings for disclosing concerns and seeking advice about potentially delicate matters pertaining to health and illness. In their affording relative anonymity to those who make use of them, internet fora continue to provide a useful platform for individuals to disclose their sensitive and potentially-face threatening experiences and concerns. Nowhere was this more profoundly evident than in those messages in which contributors expressed fears of sharing the information they were disclosing online with family members and practitioners. Coupled with the generally expressive character of the forum messages contained in the corpus, these features suggest that the kinds of disclosure and significant discursive work done in this context would likely be left unsaid elsewhere (Hunt, 2013).

Despite their providing generally supportive and "safe" environments for uninhibited and expressive levels of self-disclosure, many of the contributors to the fora examined in this study nonetheless felt the need to distance themselves from diabulimia in their messages, and to stress, moreover, their lack of personal agency and choice with respect to their suffering from it. It is therefore likely that the contributors to these and other such fora experience, or at least anticipate, some degree of stigma or censure in response to their diabulimia-related disclosures. Though internet fora are therefore unlikely to be devoid of stigma entirely, these sites still afford their users, including people experiencing diabulimia, a useful platform on which to air their concerns, seek and give advice, and discursively construct their subjective health-related experiences and understandings. As such, the relatively disinhibited communication facilitated by these platforms makes them a useful source of linguistic data,

offering researchers and practitioners alike the opportunity to learn about individuals' subjective experiences and understandings of diabulimia, or any other health-related issue for that matter, as these are constructed through discourse.

9.4. Methodological reflections and limitations

In using corpus methods to interrogate a topical, real world problem, the present study can be described as an example of what Harvey (2012: 373) describes as 'applied corpus linguistics' (see also: Adolphs et al., 2004; Crawford and Brown, 2010; Crawford, Brown and Harvey, 2014). By affording the opportunity to examine large quantities of authentic language data, corpus methods also go some way to appeasing the commitment to more objective approaches to large datasets that is commonplace in the domain of empirical health communication research (Brown, Crawford and Hicks, 2003; Brown, Crawford and Carter, 2006). Indeed, as Carter (2013: xiv) argues, as a series of approaches predicated on examining large amounts of authentic language data, corpus linguistic methods are able to provide the kind of substantial quantitative evidence that is accepted by the scientific, evidence-based world of medicine.

The specific corpus-based approach to discourse analysis adopted in this study, which has synthesised quantitative and qualitative corpus tools with theory-driven discourse analysis, has proven to be very rewarding in terms of the diabulimia-related insights that it has garnered. The use of frequency and keywords afforded a more statistically valid route into the corpus data, highlighting potential themes and discourses in the diabulimia-related forum messages which were then pursued through more fine-grain, qualitative discourse analysis,

undertaken through the corpus prisms of collocation and concordance. This mixed methods approach has thus granted me an almost kaleidoscopic view of the data, enabling me to adopt multiple perspectives on the diabulimia-related forum messages contained in the corpus, in the process yielding novel insights into this emerging health phenomenon.

Though undoubtedly rewarding, this pluralistic approach has also presented a series of challenges, and even some limitations. First, even as a specialised and relatively small corpus, the DFC still constitutes a large dataset in discourse analytical terms, and it was not possible within the remit of this study alone for me to pursue every emergent and possible line of enquiry and area of interest. Due to this selectivity, the DFC therefore still holds a considerable amount of virgin territory which, explored, is likely to reveal further insight into diabulimia.

Second, though the quantificational and statistical affordances of corpus tools provide a useful and convenient means for isolating the most frequent and statistically salient aspects of the data for closer, more fine-grained analysis (Baker, 2006: 178), prioritising data according to such criteria as frequency and statistical saliency can pose its own limitations. Linguistic aggregation, the kind of which is typically accomplished through corpus tools sitting at the more quantitative end of the spectrum, runs the risk of producing analyses that overlook potentially significant features of the data that might manifest in less frequent or less (or non) statistically salient linguistic patterns (Seale, Ziebland and Charteris-Black, 2006). Thus, in utilising inductive frequency and keyword examination to discern themes for closer analysis, the discourses that I have identified and unpacked in this study are likely to constitute dominant or so-called "majority" discourses relating to diabulimia in the context of diabetes internet fora, potentially to the exclusion of subordinate or minority discourses.

Finally, methods predicated on frequency and statistical salience are also likely to exclude, or at least to not account so comprehensively for, the presence of complex and linguistically evasive phenomena, such as topics pertaining to emotional disclosure, the lexicalisation of which is liable to be to idiosyncratic, or at the very least highly nuanced (Moore and Carling, 1988). However, to provide something of a counterbalance to this (self-) criticism, I would argue that the corpus-based approach adopted in the present study was, through close, manual examination of concordance lines, perhaps more sensitive to such nuanced discursive patterns than the foregoing discussion might imply. This notwithstanding, I do acknowledge that, by dint of the size of my data and my reliance on frequency- and statistical saliency- privileging corpus tools, it is likely that other, more nuanced and idiosyncratic linguistic manifestations of discourses residing in the forum messages will have evaded my analytical attention.

Further to this point, its emphasis on frequent and recurrent linguistic patterns meant that corpus methods indeed proved limited in some aspects of the analysis. The nuanced character of health disclosure meant that many of the discourses and other features of the data explored in the analysis were signalled in ways that were not so conducive to identification using corpus tools, such as collocation and particularly concordance, which are more ideally suited to picking up discourses that inhere in fixed and recurrent expressions. Their characteristically nuanced, even idiosyncratic, linguistic footprints made many of the discourses examined in this study difficult to quantify in the context of the data. Where corpus tools did nonetheless prove useful was in terms of identifying points of linguistic and thematic interest through the use of frequency, keywords and collocation procedures. However, in order to fully flush out discourses and apprehend their significance I relied on more qualitative, manual reading of the corpus data, for which the concordance tool proved useful.

Finally, although the DFC has provided a suitably rich dataset for pursuing the aims of the present study, a consequence of its design is that it is likely to represent the subjective diabulimia-related experiences and understandings of people from primarily English-speaking countries. The foregoing review of the methodological challenges and limitations of the present study does not mean to problematise or devalue the findings presented up to this point, nor is it intended to undermine the value of corpus approaches to discourse analysis. Rather, this review is intended as an acknowledgement of the almost inevitable shortcomings of the corpus-based approach that I have taken here, shortcomings that can be addressed in future discourse based research into this topic, some possibilities for which are considered in the next and final part of this chapter.

9.5. Looking ahead

Diabulimia remains an emerging and likely increasingly prevalent health phenomenon. Although this study marks a significant step in understanding the subjective understandings and experiences underlying this contested condition, a great deal about diabulimia has yet to be understood and explored both in the DFC and other datasets. Within the relatively limited scope of this thesis it has not been possible for me to pursue every potential line of inquiry emergent from the DFC. Future analyses of this dataset could, for instance, explore the how constructions of diabulimia interact with discourses surrounding the body, or gendered discourses.

Moving away from the DFC, utilising alternative datasets, there is scope for research that examines the discursive construction of diabulimia in other communicative contexts, such as

interviews and focus groups, the media, and even fora dedicated to eating disorders, for the contributors to such sites are likely to hold particular values and assumptions about the body, food, and eating that could shape the ways that diabulimia is discursively constructed in those contexts. Furthermore, having sampled data from peer-led platforms, the discourses identified in this study reflect how non-experts discursively construct diabulimia. Future research should therefore endeavour to explore how diabulimia is discursively constructed by members of other groups, including health practitioners. Finally, given the robust body of research that points to the profound influence of culture on the ways that individuals conceptualise and communicate about various aspects of illness and disease, including diabetes (Garro, 1995; McKean Skaff et al., 2003; Ferzacca, 2012), further research is needed to examine the discursive construction of this health phenomenon by individuals from a more diverse range of cultural groups.

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11. Appendices

Appendix A: Data and corpus output CD-ROM

Appendix B: Top 500 words in the DFC

Rank	Word	Freq.	%
1	I	4671	3.89
2	TO	3869	3.22
3	AND	3377	2.81
4	THE	3251	2.71
5	A	2515	2.10
6	YOU	2096	1.75
7	#	1930	1.61
8	OF	1843	1.54
9	THAT	1805	1.50
10	IT	1798	1.50
11	IS	1602	1.33
12	MY	1402	1.17
13	IN	1259	1.05
14	FOR	1226	1.02
15	HAVE	1197	1.00
16	WAS	986	0.82
17	WITH	931	0.78
18	BUT	923	0.77
19	THIS	901	0.75
20	NOT	882	0.73
21	ON	851	0.71
22	YOUR	823	0.69
23	BE	797	0.66
24	INSULIN	787	0.66
25	ARE	753	0.63
26	SO	714	0.59
27	AS	710	0.59
28	HER	682	0.57
29	SHE	666	0.55
30	ME	629	0.52
31	IF	578	0.48
32	WEIGHT	559	0.47
33	CAN	538	0.45
34	JUST	531	0.44
35	WHAT	517	0.43
36	AT	515	0.43
37	ALL	514	0.43
38	OR	513	0.43
39	DO	512	0.43
40	ABOUT	508	0.42
41	I'M	453	0.38
42	LIKE	435	0.36
43	WHEN	433	0.36
44	HAD	428	0.36
45	THEY	428	0.36
46	WILL	421	0.35
47	GET	412	0.34
48	KNOW	402	0.33
49	WOULD	378	0.31

50	OUT	360	0.30
51	THERE	357	0.30
52	FROM	353	0.29
53	AM	347	0.29
54	IT'S	346	0.29
55	DON'T	331	0.28
56	HELP	330	0.27
57	MORE	329	0.27
58	DIABETES	328	0.27
59	NOW	327	0.27
60	TIME	326	0.27
61	UP	325	0.27
62	AN	323	0.27
63	THINK	321	0.27
64	EATING	316	0.26
65	REALLY	312	0.26
66	SOME	309	0.26
67	BEEN	305	0.25
68	HAS	303	0.25
69	ONE	300	0.25
70	GOOD	291	0.24
71	WE	288	0.24
72	HOW	285	0.24
73	VERY	283	0.24
74	MUCH	273	0.23
75	YEARS	247	0.21
76	THEN	246	0.20
77	BY	245	0.20
78	NO	240	0.20
79	PEOPLE	237	0.20
80	TAKE	237	0.20
81	WHO	234	0.19
82	GOING	229	0.19
83	BACK	228	0.19
84	TOO	222	0.18
85	GO	218	0.18
86	CONTROL	217	0.18
87	THAN	217	0.18
88	WELL	217	0.18
89	WAY	214	0.18
90	EVEN	213	0.18
91	ONLY	212	0.18
92	ALSO	208	0.17
93	NEED	204	0.17
94	FEEL	200	0.17
95	ANY	195	0.16
96	BECAUSE	193	0.16
97	SEE	193	0.16
98	COULD	192	0.16
99	EAT	187	0.16
100	STILL	186	0.15
101	DAY	185	0.15

102	I'VE	184	0.15
103	AFTER	183	0.15
104	WANT	180	0.15
105	WHICH	178	0.15
106	DOING	173	0.14
107	HERE	173	0.14
108	TAKING	173	0.14
109	THEM	170	0.14
110	DIABULIMIA	169	0.14
111	TYPE	168	0.14
112	THING	162	0.13
113	BODY	161	0.13
114	LOSE	161	0.13
115	BEING	160	0.13
116	OTHER	157	0.13
117	BETTER	156	0.13
118	KEEP	154	0.13
119	HIGH	152	0.13
120	LIFE	152	0.13
121	RIGHT	152	0.13
122	THROUGH	150	0.12
123	DOWN	148	0.12
124	DID	144	0.12
125	BEFORE	142	0.12
126	LONG	142	0.12
127	DISORDER	140	0.12
128	LOT	140	0.12
129	MAY	140	0.12
130	MYSELF	140	0.12
131	WORK	138	0.11
132	FOOD	136	0.11
133	THINGS	135	0.11
134	MANY	133	0.11
135	OVER	133	0.11
136	LOW	132	0.11
137	SAY	132	0.11
138	THEIR	131	0.11
139	FIRST	130	0.11
140	WERE	130	0.11
141	AGAIN	127	0.11
142	BLOOD	127	0.11
143	GAIN	127	0.11
144	INTO	127	0.11
145	SOMETHING	127	0.11
146	FIND	126	0.10
147	HE	124	0.10
148	DIDN'T	123	0.10
149	HARD	123	0.10
150	CARE	122	0.10
151	HOPE	122	0.10
152	IM	122	0.10
153	NEVER	120	0.10

154	SAID	119	0.10
155	GOT	118	0.10
156	DIABETIC	117	0.10
157	FEW	116	0.10
158	CARBS	112	0.09
159	GETTING	112	0.09
160	US	112	0.09
161	SOMEONE	110	0.09
162	TRY	110	0.09
163	HAVING	109	0.09
164	SINCE	109	0.09
165	DOES	108	0.09
166	SAME	107	0.09
167	THOSE	106	0.09
168	BAD	105	0.09
169	ERI	105	0.09
170	HEALTH	104	0.09
171	HI	104	0.09
172	SHOULD	104	0.09
173	THOUGH	104	0.09
174	MIGHT	102	0.08
175	MAKE	101	0.08
176	ALWAYS	100	0.08
177	OFF	99	0.08
178	SURE	99	0.08
179	DOCTOR	98	0.08
180	STARTED	98	0.08
181	LAST	97	0.08
182	BEST	95	0.08
183	CAN'T	95	0.08
184	HEALTHY	95	0.08
185	PROBLEM	95	0.08
186	UNDERSTAND	95	0.08
187	GREAT	94	0.08
188	DAYS	92	0.08
189	OUR	92	0.08
190	SUGAR	92	0.08
191	THOUGHT	91	0.08
192	WENT	91	0.08
193	YOURSELF	91	0.08
194	FOUND	90	0.07
195	ANYONE	89	0.07
196	LITTLE	89	0.07
197	LOST	89	0.07
198	START	89	0.07
199	AROUND	88	0.07
200	ENOUGH	88	0.07
201	ITS	88	0.07
202	THAT'S	88	0.07
203	WHERE	88	0.07
204	FAT	87	0.07
205	POUNDS	87	0.07

206	TELL	87	0.07
207	WHY	87	0.07
208	YOU'RE	87	0.07
209	CARB	86	0.07
210	PUT	86	0.07
211	ABLE	85	0.07
212	LESS	85	0.07
213	MOST	85	0.07
214	PLEASE	85	0.07
215	SUPPORT	85	0.07
216	DIET	84	0.07
217	LANTUS	84	0.07
218	MONTHS	84	0.07
219	SHE'S	84	0.07
220	ACTUALLY	83	0.07
221	COMPLICATIONS	83	0.07
222	LOSS	83	0.07
223	TRYING	82	0.07
224	LOOK	81	0.07
225	READ	81	0.07
226	TOLD	81	0.07
227	TIMES	80	0.07
228	WHILE	79	0.07
229	DOESN'T	77	0.06
230	DONE	77	0.06
231	EXERCISE	77	0.06
232	SORRY	77	0.06
233	BASAL	75	0.06
234	ENDO	75	0.06
235	I'D	75	0.06
236	PROBLEMS	74	0.06
237	EVERY	73	0.06
238	POST	73	0.06
239	PUMP	73	0.06
240	SUCH	73	0.06
241	WEEK	73	0.06
242	YOUNG	73	0.06
243	BG	72	0.06
244	DIAGNOSED	72	0.06
245	DKA	72	0.06
246	FAMILY	72	0.06
247	GIVE	72	0.06
248	ANYTHING	71	0.06
249	THESE	71	0.06
250	ELSE	70	0.06
251	ETC	70	0.06
252	LUCK	70	0.06
253	USE	70	0.06
254	WITHOUT	70	0.06
255	MAYBE	69	0.06
256	OWN	69	0.06
257	THANKS	69	0.06

258	UNTIL	69	0.06
259	WISH	69	0.06
260	ANOTHER	68	0.06
261	NEEDS	68	0.06
262	NEW	68	0.06
263	OLD	68	0.06
264	SUGARS	68	0.06
265	POINT	67	0.06
266	STOP	67	0.06
267	YEAR	67	0.06
268	ISSUES	66	0.05
269	OTHERS	66	0.05
270	EVER	65	0.05
271	TWO	65	0.05
272	USED	65	0.05
273	WEEKS	65	0.05
274	DIFFERENT	64	0.05
275	HAIR	64	0.05
276	DIABETICS	63	0.05
277	QUITE	63	0.05
278	TALK	63	0.05
279	D	62	0.05
280	DIFFICULT	62	0.05
281	MAKES	62	0.05
282	NORMAL	62	0.05
283	PAST	62	0.05
284	WANTED	62	0.05
285	AGO	61	0.05
286	EVERYTHING	61	0.05
287	LEVELS	61	0.05
288	PROBABLY	61	0.05
289	ALREADY	60	0.05
290	BOTH	60	0.05
291	GLUCOSE	60	0.05
292	THIN	60	0.05
293	W	60	0.05
294	EVERYONE	59	0.05
295	HOWEVER	59	0.05
296	SOMETIMES	59	0.05
297	LET	58	0.05
298	LOVE	57	0.05
299	YES	57	0.05
300	DONT	56	0.05
301	LOSING	56	0.05
302	AGE	55	0.05
303	BELIEVE	55	0.05
304	BIG	55	0.05
305	BIT	55	0.05
306	CAUSE	55	0.05
307	MADE	55	0.05
308	ONCE	54	0.04
309	SOUNDS	54	0.04

310	AMOUNT	53	0.04
311	NEXT	53	0.04
312	PRETTY	53	0.04
313	COURSE	52	0.04
314	OFTEN	52	0.04
315	COME	51	0.04
316	CONDITION	51	0.04
317	FORUM	51	0.04
318	LEAST	51	0.04
319	LOOKING	51	0.04
320	TOOK	51	0.04
321	WELCOME	51	0.04
322	GLAD	50	0.04
323	NOTHING	50	0.04
324	PART	50	0.04
325	POSSIBLE	50	0.04
326	SAYING	50	0.04
327	DUE	49	0.04
328	EASY	49	0.04
329	THANK	49	0.04
330	ADVICE	48	0.04
331	DISORDERS	48	0.04
332	EITHER	48	0.04
333	HAPPY	48	0.04
334	HEAR	48	0.04
335	HOSPITAL	48	0.04
336	SEEMS	48	0.04
337	TERM	48	0.04
338	DOCTORS	47	0.04
339	FAR	47	0.04
340	FELT	47	0.04
341	ISN'T	47	0.04
342	MEAN	47	0.04
343	ASK	46	0.04
344	IVE	46	0.04
345	NIGHT	46	0.04
346	NUMBERS	46	0.04
347	PERSON	46	0.04
348	RECOVERY	46	0.04
349	REMEMBER	46	0.04
350	TREATMENT	46	0.04
351	WORTH	46	0.04
352	CALLED	45	0.04
353	DISEASE	45	0.04
354	IDEA	45	0.04
355	READING	45	0.04
356	CHANGE	44	0.04
357	LIVE	44	0.04
358	WON'T	44	0.04
359	ALMOST	43	0.04
360	AWAY	43	0.04
361	BOLUS	43	0.04

362	HELPED	43	0.04
363	MOM	43	0.04
364	MONTH	43	0.04
365	WHOLE	43	0.04
366	WORKING	43	0.04
367	YOU'VE	43	0.04
368	GAINED	42	0.03
369	GIRLS	42	0.03
370	INTAKE	42	0.03
371	LOTS	42	0.03
372	MIND	42	0.03
373	COM	41	0.03
374	ERI'S	41	0.03
375	ESPECIALLY	41	0.03
376	EXPERIENCE	41	0.03
377	FACT	41	0.03
378	HEARD	41	0.03
379	OK	41	0.03
380	REASON	41	0.03
381	WASN'T	41	0.03
382	HIM	40	0.03
383	ISSUE	40	0.03
384	REAL	40	0.03
385	SEEM	40	0.03
386	SITUATION	40	0.03
387	UNDER	40	0.03
388	BRITTLE	39	0.03
389	CALORIES	39	0.03
390	EACH	39	0.03
391	GIRL	39	0.03
392	HAPPEN	39	0.03
393	IMPORTANT	39	0.03
394	MUST	39	0.03
395	RATHER	39	0.03
396	SOON	39	0.03
397	TAKES	39	0.03
398	YET	39	0.03
399	DAMAGE	38	0.03
400	END	38	0.03
401	MEALS	38	0.03
402	NEEDED	38	0.03
403	STAY	38	0.03
404	STUFF	38	0.03
405	TODAY	38	0.03
406	DAUGHTER	37	0.03
407	EYES	37	0.03
408	FEELING	37	0.03
409	FOODS	37	0.03
410	INJECTIONS	37	0.03
411	MEDICAL	37	0.03
412	RESULTS	37	0.03
413	SCHOOL	37	0.03

414	SET	37	0.03
415	STORY	37	0.03
416	HOME	36	0.03
417	HTTP	36	0.03
418	INSTEAD	36	0.03
419	KIND	36	0.03
420	SELF	36	0.03
421	SKIPPING	36	0.03
422	TAKEN	36	0.03
423	WOULDN'T	36	0.03
424	WWW	36	0.03
425	BC	35	0.03
426	DANGEROUS	35	0.03
427	DEAL	35	0.03
428	DURING	35	0.03
429	GIVEN	35	0.03
430	QUESTION	35	0.03
431	STEP	35	0.03
432	TRIED	35	0.03
433	UNITS	35	0.03
434	ALONE	34	0.03
435	BETWEEN	34	0.03
436	MATTER	34	0.03
437	PLACE	34	0.03
438	TEST	34	0.03
439	THERAPY	34	0.03
440	THERE'S	34	0.03
441	THINKING	34	0.03
442	WOMEN	34	0.03
443	AGREE	33	0.03
444	ALTHOUGH	33	0.03
445	CANT	33	0.03
446	DOC	33	0.03
447	FRIEND	33	0.03
448	PERHAPS	33	0.03
449	STRUGGLING	33	0.03
450	WORSE	33	0.03
451	BECOME	32	0.03
452	LATER	32	0.03
453	STOPPED	32	0.03
454	STRUGGLE	32	0.03
455	USING	32	0.03
456	WATCH	32	0.03
457	WRONG	32	0.03
458	BULIMIA	31	0.03
459	CHECK	31	0.03
460	COMPLETELY	31	0.03
461	GUESS	31	0.03
462	HAVEN'T	31	0.03
463	RISK	31	0.03
464	SAD	31	0.03
465	SICK	31	0.03

466	TELLING	31	0.03
467	ACTING	30	0.02
468	ATE	30	0.02
469	COMING	30	0.02
470	DEFINITELY	30	0.02
471	GAINING	30	0.02
472	GOES	30	0.02
473	HELPS	30	0.02
474	I'LL	30	0.02
475	KNEW	30	0.02
476	LIKELY	30	0.02
477	LONGER	30	0.02
478	LOWS	30	0.02
479	RECENTLY	30	0.02
480	SHOTS	30	0.02
481	SHOW	30	0.02
482	COUPLE	29	0.02
483	CUT	29	0.02
484	GONE	29	0.02
485	MOTHER	29	0.02
486	SUFFERED	29	0.02
487	TRUE	29	0.02
488	UK	29	0.02
489	WANTS	29	0.02
490	WHATEVER	29	0.02
491	CALL	28	0.02
492	CAME	28	0.02
493	CERTAINLY	28	0.02
494	CONTINUE	28	0.02
495	DEALING	28	0.02
496	KNOWS	28	0.02
497	LOWER	28	0.02
498	PAIN	28	0.02
499	RUN	28	0.02
500	SEEN	28	0.02

Appendix C: Top 500 keywords in the DFC

Rank	Key word	Freq.	%	Keyness
1	INSULIN	787	0.66	8636.01
2	I	4671	3.89	8074.68
3	WEIGHT	559	0.47	3352.19
4	MY	1402	1.17	3352.02
5	DIABETES	328	0.27	3161.64
6	DIABULIMIA	169	0.14	2271.73
7	EATING	316	0.26	1972.43
8	YOU	2096	1.75	1776.34
9	CARBS	112	0.09	1385.85
10	YOUR	823	0.69	1351.45
11	ERI	105	0.09	1320.99
12	LANTUS	84	0.07	1129.09
13	AM	347	0.29	1032.25
14	CARB	86	0.07	973.25
15	DKA	72	0.06	967.78
16	IM	122	0.10	958.30
17	DIABETIC	117	0.10	928.14
18	DISORDER	140	0.12	908.91
19	ENDO	75	0.06	901.36
20	I'M	453	0.38	867.95
21	BG	72	0.06	859.87
22	ME	629	0.52	789.62
23	EAT	187	0.16	783.00
24	HELP	330	0.27	748.35
25	HI	104	0.09	708.97
26	LOSE	161	0.13	672.45
27	SUGARS	68	0.06	642.30
28	HAVE	1197	1.00	589.92
29	JUST	531	0.44	567.03
30	COMPLICATIONS	83	0.07	559.88
31	REALLY	312	0.26	557.84
32	BASAL	75	0.06	551.03
33	ERI'S	41	0.03	541.64
34	DIABETICS	63	0.05	540.89
35	GAIN	127	0.11	521.74
36	DONT	56	0.05	519.20
37	DIAGNOSED	72	0.06	485.10
38	HTTP	36	0.03	483.88
39	WWW	36	0.03	468.21
40	IVE	46	0.04	460.66
41	GET	412	0.34	452.22
42	SO	714	0.59	441.56
43	BOLUS	43	0.04	430.92
44	CONTROL	217	0.18	429.79
45	PUMP	73	0.06	419.57
46	FEEL	200	0.17	410.79
47	HEALTHY	95	0.08	406.10
48	TYPE	168	0.14	405.75
49	GLUCOSE	60	0.05	405.43

50	MYSELF	140	0.12	382.87
51	SUGAR	92	0.08	380.56
52	BLOOD	127	0.11	372.01
53	WEBSITE	27	0.02	362.91
54	TAKING	173	0.14	359.19
55	IT	1798	1.50	356.70
56	DIABULEMIA	26	0.02	349.47
57	MOM	43	0.04	336.10
58	HUMALOG	25	0.02	336.02
59	URL	24	0.02	322.58
60	FAT	87	0.07	318.33
61	DIET	84	0.07	313.97
62	KNOW	402	0.33	311.29
63	COM	41	0.03	306.22
64	NPH	23	0.02	300.83
65	DO	512	0.43	298.21
66	DOING	173	0.14	287.33
67	BODY	161	0.13	285.24
68	SKIPPING	36	0.03	284.44
69	LOWS	30	0.02	280.52
70	LUCK	70	0.06	279.32
71	CANT	33	0.03	279.19
72	THINK	321	0.27	276.75
73	DON'T	331	0.28	274.91
74	DISORDERS	48	0.04	274.40
75	LOW	132	0.11	271.23
76	DIABULIMIC	20	0.02	268.82
77	BULIMIA	31	0.03	263.65
78	LIKE	435	0.36	261.67
79	FOOD	136	0.11	261.28
80	LOL	23	0.02	256.38
81	BRITTLE	39	0.03	254.06
82	INJECTIONS	37	0.03	251.95
83	DOCTOR	98	0.08	249.37
84	GOOD	291	0.24	247.45
85	COUNSELING	19	0.02	247.44
86	I'VE	184	0.15	246.10
87	ABOUT	508	0.42	244.83
88	CAN	538	0.45	237.85
89	KEEP	154	0.13	235.88
90	COUNSELOR	18	0.01	234.10
91	HOPE	122	0.10	229.89
92	KETONES	19	0.02	227.84
93	BUT	923	0.77	225.18
94	FORUM	51	0.04	224.97
95	HER	682	0.57	214.94
96	CALORIES	39	0.03	210.71
97	NOT	882	0.73	208.09
98	THING	162	0.13	204.77
99	DOC	33	0.03	204.54
100	YOURSELF	91	0.08	204.02
101	INTAKE	42	0.03	203.28

102	THAT	1805	1.50	200.68
103	ALOT	21	0.02	197.57
104	GOING	229	0.19	196.02
105	HYPO	20	0.02	195.91
106	THATS	23	0.02	195.62
107	BAD	105	0.09	195.46
108	IF	578	0.48	190.69
109	SOMEONE	110	0.09	190.52
110	THIS	901	0.75	189.85
111	MEDS	14	0.01	188.17
112	DWED	14	0.01	188.17
113	LOT	140	0.12	185.82
114	TAKE	237	0.20	185.17
115	LBS	26	0.02	184.88
116	NEED	204	0.17	183.14
117	LOSING	56	0.05	182.15
118	HARD	123	0.10	181.50
119	BETTER	156	0.13	181.18
120	THANKS	69	0.06	178.92
121	IT'S	346	0.29	178.43
122	EXERCISE	77	0.06	174.83
123	CGMS	13	0.01	174.73
124	MUCH	273	0.23	174.35
125	WHAT	517	0.43	173.73
126	GETTING	112	0.09	170.63
127	JOSLIN	16	0.01	169.38
128	SKINNY	26	0.02	168.01
129	HOW	285	0.24	167.16
130	THIN	60	0.05	167.10
131	RETINOPATHY	19	0.02	166.75
132	INJECT	25	0.02	166.51
133	BC	35	0.03	166.44
134	TOO	222	0.18	165.76
135	POUNDS	87	0.07	165.29
136	ETC	70	0.06	164.46
137	TO	3869	3.22	162.33
138	UNDERSTAND	95	0.08	161.38
139	CARE	122	0.10	161.31
140	CARBING	12		161.29
141	DIABETESFORUMS	12		161.29
142	LEVEMIR	12		161.29
143	DX'D	12		161.29
144	LOSS	83	0.07	157.76
145	BGL	14	0.01	157.41
146	SHE	666	0.55	157.18
147	TRY	110	0.09	154.46
148	STARTED	98	0.08	153.05
149	DL	18	0.01	151.60
150	ANYONE	89	0.07	151.44
151	HIGH	152	0.13	150.15
152	GASTROPARESIS	13	0.01	148.85
153	GLAD	50	0.04	148.17

154	HTML	11		147.85
155	HYPOS	11		147.85
156	BGL'S	11		147.85
157	POST	73	0.06	147.72
158	SORRY	77	0.06	145.46
159	ANOREXIA	23	0.02	140.25
160	PLEASE	85	0.07	139.94
161	IS	1602	1.33	139.46
162	NEUROPATHY	18	0.01	133.73
163	ORG	13	0.01	133.72
164	YEARS	247	0.21	132.72
165	OK	41	0.03	131.17
166	WANT	180	0.15	130.71
167	BINGE	18	0.01	129.50
168	FOODS	37	0.03	129.29
169	RECOVERY	46	0.04	128.81
170	MDI	11		127.99
171	SOUNDS	54	0.04	126.47
172	MAYBE	69	0.06	126.12
173	MEALS	38	0.03	125.94
174	DX	15	0.01	125.82
175	OVERWEIGHT	22	0.02	125.68
176	DAY	185	0.15	125.40
177	SCARY	19	0.02	124.24
178	BG'S	10		123.60
179	ANYMORE	20	0.02	122.81
180	GAINING	30	0.02	122.34
181	BASALS	9		120.97
182	REGLAN	9		120.97
183	GOOGLE	9		120.97
184	ASHLEYMARIE	9		120.97
185	DOCTORS	47	0.04	120.42
186	THERAPY	34	0.03	119.33
187	SKIP	23	0.02	118.46
188	NOW	327	0.27	117.12
189	STRUGGLING	33	0.03	116.99
190	W	60	0.05	116.55
191	YRS	18	0.01	114.61
192	GAINED	42	0.03	114.32
193	HEALTH	104	0.09	112.85
194	PURGING	14	0.01	111.93
195	WISH	69	0.06	111.29
196	LOST	89	0.07	110.34
197	SHE'S	84	0.07	108.80
198	ATE	30	0.02	106.43
199	WELCOME	51	0.04	106.01
200	TEENS	19	0.02	105.68
201	WHEN	433	0.36	105.02
202	BOLUSES	9		104.93
203	SURE	99	0.08	104.51
204	EMAIL	12		103.69
205	VERY	283	0.24	103.58

206	HUGS	14	0.01	103.49
207	DOCS	11		102.88
208	SHOTS	30	0.02	102.63
209	WOW	20	0.02	102.27
210	INSULINS	11		102.19
211	THREAD	24	0.02	100.96
212	DD	15	0.01	100.34
213	THINGS	135	0.11	99.96
214	LOTS	42	0.03	99.66
215	PRETTY	53	0.04	98.49
216	TRYING	82	0.07	98.44
217	TABS	15	0.01	95.51
218	ISSUES	66	0.05	95.33
219	DAFNE	9		94.71
220	BINGING	8		94.64
221	FACEBOOK	7		94.09
222	PCOS	7		94.09
223	THILL	7		94.09
224	LCEE	7		94.09
225	BLOG	7		94.09
226	JDRF	7		94.09
227	PUMPING	19	0.02	93.90
228	NON	25	0.02	93.28
229	ENDOCRINOLOGIST	8		92.26
230	GO	218	0.18	91.69
231	SCARED	25	0.02	90.59
232	DOESN'T	77	0.06	89.59
233	KIDNEY	19	0.02	87.28
234	SELF	36	0.03	85.97
235	DIDNT	11		85.47
236	TIME	326	0.27	84.92
237	STILL	186	0.15	84.69
238	INJECTING	15	0.01	84.42
239	UNHEALTHY	15	0.01	84.01
240	CONDITION	51	0.04	83.69
241	EVEN	213	0.18	83.56
242	NORMAL	62	0.05	83.40
243	START	89	0.07	83.25
244	XX	12		82.91
245	FIND	126	0.10	82.57
246	ALL	514	0.43	82.05
247	LIFE	152	0.13	82.05
248	LEVELS	61	0.05	81.73
249	BACK	228	0.19	81.48
250	POSTED	19	0.02	81.00
251	READINGS	19	0.02	80.85
252	TEEN	12		80.78
253	BOLUSING	6		80.65
254	NOVOLOG	6		80.65
255	DIABULIMICS	6		80.65
256	BEHAVIORAL	8		80.64
257	DOSE	25	0.02	80.42

258	HERE	173	0.14	80.30
259	STOP	67	0.06	79.96
260	HAIR	64	0.05	79.79
261	ENDO'S	7		79.68
262	GUESS	31	0.03	78.98
263	BS	15	0.01	78.66
264	EVERYONE	59	0.05	77.50
265	HAVING	109	0.09	75.87
266	DEPRESSION	27	0.02	75.52
267	I'D	75	0.06	74.95
268	CRAZY	24	0.02	73.88
269	DIAGNOSIS	24	0.02	73.39
270	PM	22	0.02	73.31
271	DEFINITELY	30	0.02	72.89
272	SAD	31	0.03	72.49
273	INFO	13	0.01	72.40
274	METFORMIN	7		72.18
275	HELPS	30	0.02	71.83
276	WONT	12		71.70
277	ADDISONS	6		71.65
278	WEEKS	65	0.05	71.50
279	PROBLEM	95	0.08	71.34
280	PRESCRIPTION	17	0.01	71.30
281	REGIMEN	11		71.25
282	PANCREAS	12		71.20
283	READ	81	0.07	70.54
284	DOSES	17	0.01	70.25
285	HOPEFULLY	24	0.02	69.83
286	HONESTLY	21	0.02	67.30
287	XXX	10		67.26
288	DIABETICDARLING	5		67.20
289	GLYCATION	5		67.20
290	DIDN'T	123	0.10	67.09
291	HELPED	43	0.04	66.81
292	MONTHS	84	0.07	66.75
293	WAY	214	0.18	66.48
294	FORUMS	10		65.49
295	CARBOHYDRATE	13	0.01	64.93
296	ARE	753	0.63	64.81
297	D	62	0.05	64.45
298	CAN'T	95	0.08	64.35
299	BEHAVIOR	9		63.28
300	LONG	142	0.12	62.34
301	STRUGGLE	32	0.03	62.15
302	THANKYOU	8		62.02
303	APPT	5		61.80
304	DSN	5		61.80
305	KIDNEYS	12		61.62
306	KETOACIDOSIS	6		61.54
307	ELSE	70	0.06	61.11
308	EATS	13	0.01	60.75
309	DISEASE	45	0.04	60.49

310	CALORIE	12		60.36
311	TALK	63	0.05	60.29
312	ACTUALLY	83	0.07	60.29
313	ANYWAYS	7		59.13
314	CAUSE	55	0.05	58.93
315	SICK	31	0.03	58.52
316	ADVICE	48	0.04	58.27
317	DANGEROUS	35	0.03	58.13
318	LOOSE	26	0.02	57.99
319	GOTTEN	9		57.46
320	EXERCISING	15	0.01	57.41
321	FEW	116	0.10	57.18
322	ROO	6		56.98
323	HORRIBLE	20	0.02	56.97
324	ROBIN	22	0.02	56.82
325	MAKES	62	0.05	56.59
326	WHATS	7		56.32
327	STUFF	38	0.03	56.15
328	FRUSTRATING	14	0.01	55.99
329	SOMETHING	127	0.11	55.88
330	PEOPLE	237	0.20	55.09
331	TELL	87	0.07	54.65
332	HEY	20	0.02	54.50
333	BGS	11		54.30
334	LABELED	6		54.28
335	PRINCESSFAIRYCLARE	4		53.76
336	SYMLIN	4		53.76
337	GLUCO	4		53.76
338	HEYA	4		53.76
339	HYPOGLYCEMIC	4		53.76
340	BLOODWORK	4		53.76
341	BULEMIA	4		53.76
342	OUT	360	0.30	53.68
343	NEEDS	68	0.06	53.36
344	HOSPITALIZED	7		52.82
345	PSYCH	6		52.60
346	DAYS	92	0.08	52.50
347	WONDERING	22	0.02	52.23
348	PERSONALLY	23	0.02	52.18
349	THANK	49	0.04	51.96
350	HAPPY	48	0.04	51.65
351	PUKE	7		51.49
352	NURSE	25	0.02	51.28
353	FEELS	25	0.02	50.88
354	AMPUTATIONS	6		50.68
355	GIRLS	42	0.03	50.61
356	TIL	8		50.58
357	EVERYTHING	61	0.05	50.41
358	ACTING	30	0.02	50.39
359	MEDICATIONS	7		50.27
360	MICH	6		50.24
361	METER	12		49.48

362	POSTING	11		49.47
363	ICU	6		49.42
364	IMO	7		48.94
365	ENOUGH	88	0.07	48.70
366	SOME	309	0.26	48.58
367	BEST	95	0.08	48.53
368	TEENAGER	14	0.01	48.36
369	DEPRESSED	18	0.01	48.27
370	ABLE	85	0.07	48.23
371	U	28	0.02	48.17
372	SUFFER	25	0.02	48.15
373	READING	45	0.04	48.10
374	NUMBERS	46	0.04	47.74
375	OMITTING	8		47.59
376	DIETICIAN	6		47.57
377	EXCERCISE	5		47.36
378	REALIZE	20	0.02	46.92
379	CARBOHYDRATES	9		46.89
380	SKIPPED	9		46.81
381	HAPPEN	39	0.03	46.47
382	FIGURED	11		46.45
383	DOSAGE	8		46.40
384	FIANCEE'S	4		46.13
385	KETOSIS	4		46.13
386	UMMM	4		46.13
387	FOLKS	11		46.01
388	TERM	48	0.04	46.00
389	UNITS	35	0.03	45.78
390	QUIT	14	0.01	45.70
391	VEGGIES	5		45.34
392	UNWELL	9		45.29
393	SUPPORT	85	0.07	45.26
394	DAMAGE	38	0.03	45.16
395	HIGHS	7		45.09
396	THYROID	8		44.67
397	TILLY	7		44.47
398	FANTASTIC	15	0.01	44.39
399	HONEST	22	0.02	44.30
400	WASNT	6		43.81
401	COMA	9		43.62
402	PSYCHIATRIST	10		43.44
403	UNDERWEIGHT	6		43.09
404	LIVER	17	0.01	43.07
405	TELLING	31	0.03	42.96
406	DEFINATELY	5		42.69
407	AMOUNT	53	0.04	42.54
408	TREATMENT	46	0.04	42.54
409	WORTH	46	0.04	42.49
410	SUFFERED	29	0.02	42.46
411	HEALTHIER	10		42.12
412	BLIND	22	0.02	41.85
413	AGO	61	0.05	41.80

414	HEAR	48	0.04	41.75
415	THOUGHTS	26	0.02	41.53
416	BRITTANY	9		41.24
417	WORSE	33	0.03	41.21
418	POSTPRANDIAL	7		40.76
419	WILL	421	0.35	40.76
420	TOUGH	22	0.02	40.67
421	DAUGHTER	37	0.03	40.59
422	VITRECTOMY	3		40.32
423	HYPERGLYCEMIA	3		40.32
424	YOUTUBE	3		40.32
425	NOVOLIN	3		40.32
426	GLUCOMETER	3		40.32
427	WAAAY	3		40.32
428	CELIAC	3		40.32
429	HORNBACHER	3		40.32
430	ZELACK	3		40.32
431	SUNSHINEKISSES	3		40.32
432	WEIGHTLOSS	3		40.32
433	BLOODSUGAR	3		40.32
434	BLOODSUGARS	3		40.32
435	BGLS	3		40.32
436	DKA'S	3		40.32
437	LIPOGENIC	3		40.32
438	REGULARILY	3		40.32
439	DIABULEMIC	3		40.32
440	LPN	3		40.32
441	UNDERDOSING	3		40.32
442	DETEMIR	3		40.32
443	TDD	3		40.32
444	YA'LL	3		40.32
445	ALISHIA	3		40.32
446	LCHF	3		40.32
447	ENDOS	3		40.32
448	FABBRI	4		40.32
449	HMMMM	4		40.32
450	GI	7		40.30
451	INPATIENT	7		39.65
452	OVERCOME	20	0.02	39.61
453	PRE	10		39.52
454	FRUCTOSAMINE	4		39.36
455	CONGRATULATIONS	11		39.36
456	ISNT	5		39.20
457	SUPPORTIVE	12		38.72
458	OBSESS	4		38.51
459	NEVER	120	0.10	38.32
460	AGAIN	127	0.11	38.30
461	APPOINTMENT	25	0.02	38.16
462	EASY	49	0.04	38.15
463	PROBLEMS	74	0.06	37.87
464	INTENTIONALLY	8		37.87
465	COMPLIANT	7		37.86

466	TESTING	22	0.02	37.84
467	THOUGH	104	0.09	37.82
468	EYESIGHT	8		37.81
469	MEDICATION	10		37.70
470	INJECTED	10		37.48
471	PURGE	8		37.42
472	STRESS	26	0.02	37.32
473	BM	6		37.32
474	COMPLICATION	9		37.31
475	CORRECTION	11		37.31
476	CORA	4		37.04
477	MEDICAL	37	0.03	36.98
478	MOSTLY	23	0.02	36.95
479	STRUGGLED	14	0.01	36.95
480	AWESOME	9		36.84
481	DOSING	6		36.76
482	ED	17	0.01	36.70
483	ILLNESS	21	0.02	36.48
484	BTW	5		36.14
485	DEALING	28	0.02	36.11
486	HARDER	18	0.01	35.83
487	HEMOGLOBIN	3		35.83
488	SHES	3		35.83
489	WALMART	3		35.83
490	WELLWORN	3		35.83
491	SOMETIMES	59	0.05	35.81
492	MG	14	0.01	35.80
493	STEP	35	0.03	35.64
494	BECAUSE	193	0.16	35.57
495	PASTA	10		35.51
496	DIFFICULT	62	0.05	35.40
497	CONFUSED	18	0.01	35.30
498	GOEBEL	4		35.24
499	BATTLING	9		35.10
500	THO	7		35.09