Discourse and health(care)

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What is health communication?

This chapter examines the relationship between discourse and health(care). *Health communication* refers to all aspects and modes of communication that take place within medical contexts or which broadly relate to the subject of health and illness. Accordingly, health communication is an all-embracing concept which accounts for a vast and diverse range of communicative activities, ranging from personal accounts of health and illness and encounters with medical professionals, through to policy documents and advertising texts. The study of health communication is thus a broad field of enquiry and practice which takes in a variety of disciplines concerned with discourse. In this chapter, we restrict our focus to health communication research which examines naturally occurring linguistic routines (in contrast with more theoretical approaches and research which seeks to describe what constitutes 'effective' health communication).

An important concept in the type of research we are concerned with in this chapter is *discourse*. Gwyn (2002) identifies two broad and interrelated senses in which the concept of discourse is often utilised within studies of health communication – a micro sense and a macro sense. The micro sense refers to specific meanings of spoken or written discourse, 'the particular means by which individuals express themselves in language', while the macro sense refers to generic styles of representation, or 'constrained ways of thinking and talking within a given sociocultural orbit' (*ibid.*, p.31). The micro definition will likely be most familiar to linguists and social psychologists, while the macro definition more closely reflects

the approaches adopted within disciplines such as cultural studies and literary studies. The distinction between the micro and macro definitions is blurry, though, and health communication researchers often combine these approaches to capture both the linguistic routines that constitute the discourse of particular healthcare contexts, as well as how such discourses both draw upon and reproduce societal understandings of, and attitudes toward, health, illness and the body. From this view, we can conceive of discourse as not merely reflecting 'entities and relations in social life', including those relating to health and illness, but as actively contributing to their construction and constitution (Candlin et al., 1999: 323). With regard to health(care) communication, language and other modes of communication play a significant role in constituting practices that take place within a range of medical settings. Therefore, as we seek to demonstrate in this chapter, discourse can be seen as a central activity within the context of healthcare.

Alongside the sheer volume of discursive activities falling under the umbrella of health communication, it should also be noted that healthcare is constantly in flux, with macro-level societal-level changes both reflected in and constituted by the discourses taking place within micro-level healthcare contexts. For example, in the UK, the increased emphasis on patient empowerment and patient-centred medicine has resulted in the term 'client' increasingly supplanting the more paternalistic 'patient' (Brown et al., 2006). Relatedly, Brookes and Harvey (2016a) and Chałupnik and Brookes (2021) describe how the ongoing privatisation of UK healthcare services is both reflected in and constituted by a rhetoric of 'deliverology' in contemporary health(care) discourse. Jones (2013), meanwhile, associates the increased emphasis on preventable diseases within industrial societies with a proliferation of discourses which position illnesses as outcomes of individual behaviours. Jones (2013: 4-5) argues, 'health has become not just a matter of physical, mental and social well-being, but

primarily a discursive exercise of constantly reproducing "health" in our daily lives as part of ongoing identity projects'.

Whatever the changes affecting contemporary medical practice may be, the very nature of healthcare unavoidably involves communication between various participants. Sarangi (2004: 1) describes the relationship between health professionals and patients as being a primarily 'communicative' one. Indeed, discourse is central to a wide range of activities concerned with health. As Brookes and Hunt (2021: 1-2) put it, 'rendering our bodily experiences meaningful to ourselves and discussing them with friends and family members, recounting them to health professionals, organising healthcare systems, performing surgical operations, saving and improving lives, and shaping health behaviours among the public all depend upon acts of situated communication about health and illness'.

The contemporary focus on communication in healthcare (both from practitioner and scholarly perspectives) can be linked to a 'communicative turn' in medical practice, which recognizes the limitations of the biomedical model of health and illness (Sarangi, 2004: 3). Consequently, rather than emphasizing the technical, scientific assumptions of medicine, much contemporary research in health communication now emphasizes patients' voices and perspectives, including as these are constituted through discourse. The 'communicative turn' has resulted in a vast and wide-ranging body of discourse-based research of health(care) communication. This research applies an impressive range of approaches to discourse analysis (see Brookes and Hunt, 2021), spanning disciplines as diverse as linguistics, health services, ethics, psychology, social sciences, anthropology and media studies, to name just a few. With this diversity in mind, it is an impossible task for us to provide a comprehensive account of health communication research within the scope of this chapter. However, to

cover as widely as possible the multiplicity of themes, text types and approaches which characterise contemporary health communication research, we have divided this chapter into three sections: (i.) spoken health(care) discourse, (ii.) written health(care) discourse, and (iii.) digital health(care) discourse. These areas of focus allow us to present a broad overview of the various health communication concerns taking place across these modes, as well as how discourse-based research has set out to examine these. Within each section, we also provide a more in-depth overview of a specific example of health communication research which is intended to illustrate what discourse analysis can tell us about health communication across these various contexts.

Spoken health(care) discourse

A significant amount of medical practice is mediated through verbal interchange (Brown et al., 2006). Although clinical settings can, as noted, be characterised in terms of a wide range of communicative practices and personnel, health communication research has traditionally focused on interactions between doctors and patients in particular (Candlin, 2000). This research has been driven by several themes, chief amongst which is the identification and explication of recurring sequences of talk, as well as the enactment of authority and control in consultations (discussed below). While the focus on doctor-patient exchanges has certainly maintained, research on spoken health(care) discourse has nevertheless diversified in focus, considering also exchanges between health professionals (e.g. Eggins and Slade, 2016; Chałupnik and Atkins, 2020), as well as broadening in terms of the types of health professionals under study, including, *inter alia*, nursing staff (Eggins and Slade, 2016),

physiotherapists (Josephson et al., 2015), pharmacists (Pilnick, 2009) and pastors (Harvey et al., 2008).

Studies of spoken healthcare interactions have tended to utilise approaches such as conversation analysis, text analysis, critical discourse analysis and discursive psychology, while emerging approaches include those from corpus linguistics, cognitive linguistics, discursive ethnography and mediated discourse analysis, among others. This diversification of approaches to discourse analysis has been brought about, in part, by a broadening of focus regarding the types of contexts in which spoken health(care) discourse has been interrogated. Beyond traditional healthcare encounters, recent studies have considered contexts as diverse as everyday health talk (Jones, 2013), reading groups (Lampropoulou et al., 2019), medical simulations (Chałupnik and Atkins, 2020), research interviews (Galasiński, 2008) and focus groups (Knapton et al., 2021).

The aforementioned approaches to discourse analysis, and more besides, offer promising points of entry into the interrogation of medical practice and are often combined to triangulate the perspectives they are able to provide on such practice. A particularly fruitful area of methodological triangulation is the combination of conversation analysis and interactional sociolinguistic methodologies with approaches from critical discourse analysis, where the research impetus is as much to criticize and change clinical communicative practices as it is to describe and understand them. Such studies have critically exposed interactional asymmetries between doctors and patients, in particular demonstrating how the personal and social contexts of patients' illnesses become marginalized by doctors in favour of medico-technical understandings. To illustrate how the analysis of discourse structures can expose issues of power and dominance in medical consultations, we will consider a sample of

analysis carried out by Fairclough (1992) on the basis of a transcript of doctor-patient interaction (Figure 1), first presented and discussed by Mishler (1984).

Figure 1. Transcript of doctor-patient interaction, taken from Mishler (1984)

P = Patient; D = Doctor

1	D:	Hm hm (.3) now what do you mean by a sour stomach?
2	P:	(1.1) What's a sour stomach? A heartburn
3		like a heartburn or someth[ing.
4	D:	[Does it burn over here?
5	P:	Yeah
6		It li- I think- I think it like- If you take a needle
7		and stick [ya right [….there's a pain right here [
8	D:	[Hm hm [Hm hm [Hm hm
9	P:	and and then it goes from here on this side to this side.
10	D:	Hm hm does it [go into the back?
11	P:	[It's a:ll up here. No. It's all right
12		[Up here in the front.
13	D:	[Yeah And when do you get that?
14	P:	(1.3) Wel:l when I eat something wrong
15	D:	How- how soon after you eat it?
16	P:	Wel:l probably an hour maybe [less.
17	D:	[About an hour?
18	P:	Maybe less I've cheated and I've been
19		drinking which I shouldn't have done.
20	D:	Does drinking make it worse?
21	P:	Ho ho uh ooh Yes (1.0) especially the carbonation and the alcohol.
22	D:	Hm hm how much do you drink?
23	P:	(1.5) I don't know enough to make me
24		sleep at night and that's quite a bit.
25	D:	One or two drinks a day?
26	P:	O:h no no no humph it's more like ten [at night
27	D:	[How many drinks – a night.
28	P:	At night.
29	D:	Whaddya ta- What type of drinks? I [((unclear))
30	P:	[Oh vodka yeah vodka
31		and ginger ale.
32	D:	How long have you been drinking that heavily?
33	P:	(1.4) Since I've been married.
34	D:	How long is that?
35	P:	((giggle)) Four years. ((giggle)).

As Fairclough (1992: 140) observes, this encounter is organized around the doctor's questions, to which the patient then responds. Thus, the doctor tightly controls the organization of the dialogue by opening and closing each interactional cycle while acknowledging/accepting the patient's answers. The patient's contributions are therefore

restricted, since she talks only when prompted by the doctor, i.e. through the use of questioning. The doctor, conversely, is not granted turns at talk but takes them when the patient has finished her answers, or when she has provided sufficient information to answer the doctor's query.

Another feature of the interview is the introduction, maintaining and changing of topic. The doctor sets the topical agenda since, typically, it is he who introduces new subjects or chooses whether to ignore the pursuit of new, patient-initiated topics. For instance, the patient says she has 'cheated' – that is 'drinking', which she 'shouldn't have done'. The doctor, however, does not follow up this potentially revealing and significant personal admission, instead concentrating on the medical details of the alcohol consumption. Fairclough (1992: 141) suggests that, given his narrow focus on medical aspects as opposed to the patient's social and personal concerns, the doctor is limiting topics in accordance with a pre-set agenda, which the patient is prevented from disrupting. The doctor further constrains the patient's turns through consistent use of closed questions (e.g. 'Does it burn over here?' and 'Does it go into the back?') which produce only information-limited 'yes/no' responses and do not allow the patient to take the floor in the same way that an open question such as 'Tell me about your concern' would. Yet, for all that, the doctor does employ a number of more open questions that, in theory, would provide more substantial access to the floor, e.g. 'How many drinks a night?', 'What type of drinks?'. However, these questions are tightly focused on specific details (e.g. type and quantity of alcohol) of the patient's drinking and do not encourage her (as her responses demonstrate) to introduce new topics germane to the personal and social context of her troubles.

The doctor's questions often interrupt and overlap with the patient's as still-incomplete prior turns, which seems to indicate that the doctor has received all the information he considers necessary from the patient's reply. Thus, the doctor seems to be cleaving to the pre-set agenda/routine mentioned above, through which he passes swiftly and efficiently. Fairclough argues this routine, from the patient's perspective, can appear as a series of disjointed and unpredictable questions, which might account for the patient's hesitations before she produces her answers.

This analysis is, as Fairclough concedes, one-sided in its focus upon interactional authority and control. Nevertheless, it insightfully and powerfully demonstrates how the doctor interactionally dominates the encounter, limiting the patient's conversational resources in order to pursue a pre-determined medical agenda. The doctor's authority manifests in linguistic features (e.g. turn-taking and topic shifts) which he uses to enact interactional control by responding to the scientific, medical aspects of the patient's complaint, without appealing to the condition in the context of other aspects of the patient's personal, social life. In this sense, the doctor manifests the voice of medicine (Mishler, 1984), whereas the patient's responses mix the voice of medicine with that of 'the lifeworld' (Habermas, 1984). The voice of medicine, according to Fairclough (1992: 144), 'embodies a technological rationality which treats illness in terms of context-free clusters of physical symptoms, whereas the lifeworld embodies a "common sense" rationality which places illness in the context of other aspects of the patient's life'. According to Fisher (1991), the doctor-patient relationship rests on a medical model of health and illness which sees disease as the organic pathology of the individual patient. The problem to be targeted exists in the patient's body – organs and body parts malfunction in mechanistic fashion – and, accordingly, non-organic

problems, including the social contexts of patients' lives, do not fit comfortably into this medical account of illness (ibid.).

What discourse analytic interrogations of provider–patient exchanges are able to expose, then, is how diverse and contrasting perspectives are commonly brought into being during the health care interaction. As Fairclough (1992: 144) concludes, close critical analysis of the doctor's controlling medical interaction and the ideological voices that shape it are means by which to grasp routine, standardized health practices at a micro-analytical level, affording penetrating insights into health care as a mode of professionalism and social practice. Contemporary studies in this area have demonstrated how such clinical exchanges reflect, but also contribute towards, broader socio-political changes in the healthcare landscape. For example, Stivers and Timmermans's (2020) conversation analytic study demonstrates how practitioners use language to transform patients' resistance to certain recommendations into acceptance. This requirement, the authors argue, is a product of a broader weakening of medical authority, itself brought about by various internal and external pressures, such as weakening institutional support and increased emphasis on patient-centred care.

While in this section we have focused mostly on research on healthcare interactions, and particularly on those featuring doctors and patients, this of course represents just one genre of speech that can and has been examined by health communication researchers. Now, we turn our attention to discourse studies of written health communication.

Written health(care) discourse

Studies of written health(care) discourse take in a wide range of genres which represent texts produced within both traditional clinical contexts and more everyday situations. Research addressing written texts produced within clinical contexts has examined genres such as medical note taking (Galasiński and Ziółkowska, 2021), patient case histories (Francis and Kramer-Dahl, 2004), patient information leaflets (Clerehan and Buchbinder, 2006), and public health campaigns (Mulderrig, 2018). More 'everyday' written genres of health(care) discourse, meanwhile, include such texts as food packaging labels (Jones, 2013), literary works (Demjén and Semino, 2015) and news media (discussed below). Reflecting this wide range of genres and contexts, studies of written health(care) discourse have drawn upon a suitably diverse range of approaches. Here, we can observe some overlaps with the kinds of approaches that have been applied to spoken genres. For example, just as approaches from critical discourse analysis have been used to investigate the power dynamics of spoken health(care) interactions, such approaches have also been used to examine the negotiation of power in written texts, for example in Galasiński and Ziółkowska's (2021) critical examination of the discursive constructions of detained patients in Polish nursing notes and Brookes's (2021) analysis of neoliberal discourse in the UK government's 'Tackling Obesity' policy paper. Some approaches to discourse analysis are particularly well-suited to analysing written health texts. For example, stylistic analysis represents an increasingly popular approach to studying literary depictions of health and illness (e.g. Demjén and Semino, 2015), while framing analysis has been fruitfully applied to the analysis of media texts (e.g. Atanasova and Koteyko, 2017).

Corpus linguistic approaches to discourse analysis, while being taken up increasingly within studies of spoken health(care) communication (e.g. Adolphs et al., 2004; Staples, 2015), have proved particularly popular in studies of written and, as we will see, digital contexts. This is

because written, and especially digital, texts are much more easily rendered into the computer-readable format required for corpus analysis than their spoken counterparts (which must be recorded and transcribed first). Text types that are amenable to rapid collection at-scale are thus particularly well-suited to corpus analysis, and it is perhaps for this reason that corpus approaches have proved popular for discourse studies of print media representations of health and illness, where online news repositories facilitate the rapid download of news articles at scale. Corpus studies of print media depictions of health and illness typically incorporate perspectives from other approaches to discourse analysis. For example, Brookes and Baker (2021) took a corpus-based approach to critical discourse analysis to examine UK print media representations of obesity. Meanwhile, Baker et al. (2020) combined corpus linguistics methods with framing analysis to track change over time in UK press representation of obesity.

Multimodal approaches to discourse analysis are also well-suited to the study of written health texts, many genres of which incorporate modes such as sound, image, colour, font, etc. alongside writing into their design. In recent years, multimodal and critical perspectives on discourse analysis have been combined to interrogate the multi-semiotic representation of health and illness topics across a range of written genres (see Brookes et al., 2021). To illustrate this, we will now consider a sample of analysis carried out by Brookes et al. (2018), which critically examines the multimodal discourse representation of dementia across eleven UK national newspaper articles published in November 2016 following a report from the UK Office for National Statistics which showed that dementia had become the country's leading cause of death. The authors used a multimodal approach to critical discourse analysis to examine the linguistic and visual representation of dementia and people with it across the articles. They observed numerous linguistic representations, including metaphorical

depictions which equated dementia to a murderer, and which cast those diagnosed with the syndrome in the role of victim. Dementia was also framed as a competitor in a race with other diseases to become the ‘biggest killer’, as well as against those developing pharmacological cures (who were depicted as lagging behind). Importantly, adopting a multimodal approach, the analysis also demonstrated how dementia and people with it were visually depicted through stock images, for example of people holding their heads in pain (as if to reify the syndrome and locate physical pain in the head), presenting visual metaphors which equated the brain with dementia to burning paper, and of brain scans which, the analysts argue, reduce the person with dementia to the neurological symptoms of their diagnosis.

The most common type of image across the articles, however, was that of hands, and specifically disembodied hands (Figure 2), which featured in nine of the eleven articles.

Figure 1. Images of hands in the newspaper articles (taken from Brookes et al. 2018)

Brookes et al. argue that these reductive visuals metonymically diminish the represented participants to little more than ‘anatomical data’ (p. 384). The hands – which appear in sharp focus against soft, blurred backgrounds – are tightly framed and shown in extreme close-up, to the extent that other body-parts, including the head and face, are obscured from view. Consequently, the analysts argue, viewers are denied access to the individuals to whom these hands belong. Considering the use of focus and lighting, the clarity and brightness of the illumination reveals not only features such as bruises and liver spots, but also creases and wrinkles in the skin and even the bones and joints beneath – all conventional visual markers of old age which cumulate to foreground fragility and deterioration.

It is also notable that the participants in half of these images clasp their own hands rather than someone else’s – a gesture which the authors argue emphasises loneliness, exclusion and the ‘social death’ that dementia is often perceived as entailing. These images not only index both old age and dementia, but their configuration therefore conceptually cements the two together. A potential reading of this conflation of old age and dementia is that the syndrome is viewed as an inevitable outcome of old age, leaving little scope for an alternative perspective of healthy or positive ageing.

On the basis of their analysis, which revealed a range of dehumanising and objectifying depictions of people with dementia, Brookes and colleagues argued there to be little evidence in the articles they examined that the press were attuned to the significance of representing people with dementia sensitively and responsibly. Rather, the linguistic and visual discourses evident within the articles were argued to depict people with dementia in mostly reductive

and objectifying terms, emphasising the popular misconception that dementia is always bigger than the person. Indeed, people with dementia were variously constructed through discourses of loss and victimhood, reduced to body parts (particularly hands) and presented in disembodied form and devoid of mind. Dementia itself was represented as a violent and devastating entity which actively and agentively visits death on large numbers of people. The impact of recycling such fear-inducing and degenerative tropes, which are seemingly intended just as much to sensationalise as they are to inform, is, the authors argue, likely to promote further misunderstanding and fear of dementia.

While media depictions of dementia have been widely studied within the health-oriented humanities and social sciences, the study described above was one of the first (and few) to critically interrogate linguistic and visual representations of dementia in this context. This study demonstrates the value that can be gained from moving beyond content-analysis-style approaches to media discourse which focus exclusively on the “what-is-said”, and to instead interrogate critically the “how-it-is-said”; that is, the way in which both visual and linguistic content is rhetorically composed and buries meaning beneath its obvious, taken-for-granted surface.

Digital health(care) discourse

Over the years, studies of health(care) communication have paid increasing attention to the role of discourse in digital contexts in representing, communicating and indeed shaping individuals’ understandings and experiences of health and illness. This intensification in focus can be viewed as reflecting the growing prominence of digital technologies – and the

discourse that is produced through and associated with them – for mediating health-related knowledge and experience within society (Lupton, 2018).

Characterising health-related research of digital discourse in broad-brush strokes is difficult as, like the other modes discussed in this chapter, digital health(care) discourse constitutes a range of genres which each bring their own contextual and linguistic characteristics and peculiarities. For this reason, much like written genres, studies of digital health(care) discourse have employed a range of approaches in order to fully apprehend the full discursive force of the given genre(s) being studied. For example, multi-semiotic digital texts, such as healthcare websites and social media sites, have been examined using the types of multimodal approaches to discourse analysis illustrated in the previous section. Examples include Koteyko and Nerlich’s (2007) multimodal analysis of probiotic web advertising, Thompson’s (2012) analysis of a mental health community website, Hunt’s (2015) analysis of posts to a diabetes Facebook support group, and Brookes and Harvey’s (2016a) multimodal critique of marketizing discourse in a UK healthcare website. Indeed, digital technologies continually bring new communicative platforms on which discourse around health and illness routinely takes place, such as social media. Other emerging digital contexts of interest to health communication researchers include health and fitness apps (Jones, 2015), platforms for reviews of healthcare services (Baker et al., 2019), and online comments accompanying health-related news stories (Collins, 2019).

A digital platform that has received considerable focus from health communication researchers is that of online support groups. Such contexts bring together individuals with shared health concerns for the purposes of sharing their experiences and exchanging advice (Hunt and Brookes, 2020). Since the 1990s, an unfathomable number of online fora have

emerged in relation to a broad spectrum of health- and illness-related topics. While the health benefits of participating in such online communities have yet to be demonstrated by clinical studies, there is nevertheless a growing acknowledgement of value of sharing information and feelings, the removal of geographical barriers, and the sense of solidarity, all of which can help individuals to manage crises and generate a sense of personal empowerment (Hunt and Brookes, 2020). The relative anonymity of most online support groups has also been noted to have the potential to facilitate discussion of potentially embarrassing topics, thereby increasing the possibility for more candid forms of self-disclosure (Brookes and Harvey, 2016b).

Much discourse-based research of this context has focused on how users linguistically formulate advice-requesting and advice-giving contributions (see Stommel and Lamerichs (2014)). Such studies have demonstrated how advice requests are often not straightforward. For example, Vayreda and Antaki (2009) observed how initial posts to online support groups for people experiencing bipolar disorder were often framed not as specific requests for advice but, rather, as more generally worded requests for help. Stommel and Lamerichs (2014) suggest that the indirectness of such requests could be linked to participants' need to present themselves as competent, as well as to limit the possibility of receiving undesirable responses. In terms of advice-giving, many studies have focused on the need for users to establish their knowledge and credibility as advice-givers. One means by which credibility can be established is through use of comparable stories or narratives as advice-giving mechanisms, whereby the resolution acts as implied advice to the requester (Veen et al., 2010). The requesting and issuing of advice can thus be more or less direct, with the chosen format and level of directness likely intertwined with users' need to construct positive online identities while also attending to group norms and (implicit) conditions for membership.

Another prominent area of focus for discourse studies in this area relates to how contributors linguistically establish their legitimacy or authenticity as members of a given online community. For example, Lamerichs's (2003) study of a depression-related online support group demonstrated how contributors presented themselves as being 'truly depressed', which they did, for instance, by using precise details to situate their suffering within both time and space (i.e. when and where their experiences of depression started), and by displaying and accounting for those experiences.

While most discourse-based studies of online support groups have adopted largely qualitative methods, in recent years corpus linguistic methods have increasingly been utilised as a means of provide quantitative perspectives on such analyses. Corpus studies in this area have interrogated the discourse that characterises such online support groups in relation to a wide and ever-broadening range of health and illness topics, such as (but certainly not limited to) cancer (Demmen et al., 2015), chronic illness (Brookes, 2018) and mental health (Hunt and Brookes, 2020; Lustig et al., 2021). Corpus linguistic techniques have enabled these and other researchers to sample larger numbers of support group contributions and thereby assess trends in the linguistic routines that constitute them, in the process obtaining a sense of a wider range of lived experiences and interactional styles than would be practical using purely manual approaches. The benefits of integrating corpus methods into discourse analysis have also been harnessed in studies of other digital health(care) contexts, including interactions between patients and professionals.

To illustrate what a corpus analysis of digital health(care) interactions can show, we present sample analysis from Harvey's et al.'s (2007) study of the discourse in a 400,000-word corpus of emails submitted to a popular adolescent health website, *Teenage Health Freak*.

The website is operated by two doctors based in the UK and specialising in adolescent health, who respond to adolescents' anonymous health advice-seeking emails in the form of the website's virtual persona, Dr Ann. Across a series of studies, Harvey and colleagues employed a corpus-based approach to discourse analysis to identify recurrent themes and to interrogate the adolescents' linguistic routines in order to better understand the health-related experiences, beliefs and concerns of this underserved population. The analytical entry point for this study was the keywords technique, which indicates words occurring in the corpus with a greater frequency than would be expected relative to a reference corpus (in this case, a subsample of the CANCODE corpus of spoken English). The resultant keywords (Table 1) were interpreted as indicating the central health themes and verbal choices in the adolescents' emails.

Table 1. Keywords in the adolescent email corpus (frequencies in brackets).

my (9,775), *i* (25,287), *am* (3,594), *sex* (3,208), *im* (2,234), *me* (4,659), *penis* (1,480), *help* (1,834), *quiz* (1,273), *ann* (1,184), *don't* (1,110), *asked* (1,443), *pregnant* (1,092), *question* (1,374), *have* (6,237), *is* (6,924), *do* (5,655), *boyfriend* (848), *bullying* (785), *period* (884), *dr* (821), *please* (1,265), *drugs* (757), *how* (2,377), *worried* (744), *u* (743), *gay* (616), *normal* (746)

Through analysis of these keywords, Harvey and colleagues identified numerous themes constituting the adolescents' emails, including: self-disclosure (e.g. *my*, *i*, *worried*), advice-seeking (e.g. *help*, *question*, *please*), sexual and reproductive health (e.g. *sex*, *penis*, *pregnant*), sexuality and relationships (*boyfriend*, *gay*), drugs (*drugs*), bullying (*bullying*), and interaction with features of the website (*quiz*, *ann*, *dr*). While keyword analysis provided

a broad overview of linguistic tendencies and themes in the data, subsequent analysis of concordance lines (see, for example, Table 2) allowed a process of 'drilling down' to address progressively more detailed and contextualised levels of analysis of keywords. Consequently, the authors were able to undertake more granular interrogation of keywords in situ, exploring, in greater contextual detail, how the adolescent emailers linguistically formulated their difficulties and concerns. Through this more qualitative analysis, the authors observed that many of the messages exhibited a 'normative structure' which often centred upon an overarching construction of situations or symptoms as *normal*, or not *normal*, as indicated in this sample of concordance lines of this keyword (Table 2).

Table 2. Sample of 20 concordances of *normal*.

I'm 12, I'm 5, 3 ft and 42 kg is this a	normal	weight or is it too light?
or being flat chested. Worried boobs aren't	normal	size. episodes of Bulimia
seen that is normal. But I dont want to b	normal	I want to be thin. I find it insulting
14 and I havent started my period am I	normal	I masterbate. I use
sick for no apparant reason. Is it	normal	to miss a period for 3 months
thinking about becoming a transexual. Is it	normal	to do this?
I still have a lot of discharge is this	normal	??
been a little depressed recently. Is this	normal	?
ward and I havent got any pubic hair am I	normal	?. I am 13 and my name
this white stuff in my under wear, am I	normal	or do I have a disease.

during intercourse how far back does the foreskin go? Mine goes over the head of the penis but no further. Is this	normal	Will I be able to have intercourse.
I have a 4 inch penis and the boys in my class all say they have 6 or 7 in am I	normal	?
Is it	normal	for my balls not to have dropped by this time in life
Is there such a thing as pubic dandruff? How would u get rid of it? Is it	normal	t cut ur pubic hair?
Is it	normal	before your period to have a pain in only one breast, only round the nipple area? could that mean I might be pregnant even if I haven't fooled with a guy?
I can feel a lump inside my vagina, about 4 cm in, it isnt tender or painful to touch, but is it	normal	and if my boyfriend feels it will he be freaked out?
is phone sex	normal	because I've had it a couple of times with 2 boys
I've been sleeping with my boyfriend for 3 month now but am stil bledding after sex sometimes heavily, is this	normal	or should I see a doctor?
I had my first period in December but the I skipped January is this	normal	
I'm 12, I'm 5, 3 ft and 42 kg is this a	normal	weight or is it too light?

The concordance output allowed the authors to isolate all instances of *normal* which, to aid the identification of patterns, are vertically stacked upon one another with the node in the centre. Harvey et al. (2007) observed how, grammatically, *normal* performs numerous expressive functions, modifying and referring to specific health concerns and worries (e.g. '*normal* weight', '*normal* size', 'is this *normal*'), as well as being used in a more general sense to convey overall normality: 'am I *normal*' – against which, the placing of specific problems are brought into relief. The various grammatical realisations of *normal* relate to numerous issues, including mood-, sex- or age-related norms, such as when it is usual to begin one's periods or how regular these should be. The authors argued this concern with what is deemed *normal* to reflect the developmental stage of (particularly early) adolescence, where younger teenagers are more occupied with personal identity than older teenagers, who are more likely to have resolved some of their most urgent identity issues. At the same time, these concordance lines reveal how the concept of normality is loaded with other meanings and positive valuations. For example, to someone concerned about the onset of periods, the normativity may relate to the desirability of not being left out when one's peers begin menstruating.

Further analysis of the types of questions in which *normal* occurred revealed how the concept was often used as part of a contrastive statement, in which the event or phenomenon is described and then an invited contrast or comparison is posed: 'is this *normal*?'. For example, one advice-seeker asked, 'When me and my boyfriend have sex I sometimes fart at of my vigina, is this *normal*?', while another asked, 'Right by the hole in my vagina, there is. . . a thing like a ball. Is this my g-spot or is this normal??'. Thus, when advice-seekers used

normal in their emails, this was often in the context of describing something they perceived to be wrong within a normative structure, rather than being statistically unusual.

Building on the thematic overview provided their analysis of keywords, Harvey et al.'s granular examination of concordance lines provided a fuller picture of the kinds of contexts in which the adolescents used *normal* in their emails. Harvey et al.'s study thus illustrates the power of corpus assistance to contribute insight into subjective, culturally embedded and linguistically displayed notions of illness and health. Whether in digital or other contexts, corpus linguistic techniques can provide researchers, practitioners and policymakers with the unique opportunity to contextualise their insights within much larger datasets of authentic health-related language use.

Outlook and future directions

The field of health communication represents a diverse and exciting area of discourse-based of enquiry which continues to grow apace. This expansion is not only observable in the increasing numbers of discourse analysts engaging in health-related topics but is also reflected in the emergence of new journals, conferences and research institutes situated at the interface of health/illness and discourse. The continual development of the field defies easy or comprehensive coverage in a chapter such as this, as it is almost impossible to cover in adequate depth the range of health topics, discourse sites and analytical approaches which characterise contemporary health communication research. Therefore, while we have attempted to reflect this variation in the types of studies discussed over the previous pages,

we have inevitably not been able to account for all themes, data-sites and approaches to discourse which characterise contemporary health communication research.

This point notwithstanding, the studies discussed in this chapter demonstrate how the use of discourse in healthcare is not merely a means of conveying information and representing particular states of affairs. Rather, discourse in fact constitutes medical procedures and hence helps determine certain clinical outcomes – outcomes that are liable in some instances to have a profound impact on patients' lives. Accordingly, analysing health-related discourse not only contributes to our knowledge and understanding of the various social and clinical activities that take place in healthcare settings – not to mention the role that discourse plays in conveying and shaping individuals' personal experiences of health illness – but it also has very practical consequences with regard to engendering more equitable and humane practices in healthcare. Indeed, as the case studies discussed in this chapter illustrate, analysis of health(care) discourse can not only bring into sharp relief how situated linguistic routines of health professionals can contribute to the maintenance of power asymmetries in the micro-context of clinical encounters. Meanwhile, analysis of mass consumption texts, such as news articles, can illuminate the capacity of linguistic and visual representations of illnesses can contribute, at the macro-level, to the fear, stigma and misunderstanding that surround topics contemporary public health challenges, such as dementia, within society.

Discourse-based health communication research addressing the recent – and at the time of writing, ongoing – coronavirus pandemic has demonstrated aptly the capacity of research within the field to respond rapidly and creatively to global public health challenges. As new public health issues emerge in the future – mediated, as they are, through discourse taking place across existing and emerging communicative technologies – we can expect research in

health communication to continue to incorporate and indeed develop an ever-widening range of approaches to discourse analysis. In this endeavour, we can expect research in health communication to continue to interrogate datasets which cut across modes and contexts, in the process using pluralistic methods which synergise complementary approaches to discourse. Yet a major challenge for the field going forward is also methodological in nature. While the publication of discourse-oriented research in health journals (e.g. Brookes and Baker, 2017) can be interpretated as a sign growing recognition of the value of discourse-based research for understanding health-related knowledge, belief and experience, it remains the case that most major health journals are reluctant to publish such research, particularly that which is qualitative in nature (Greenhalgh et al., 2016). If discourse-based research is to contribute in a more substantial and sustained way to healthcare policy and practice, researchers working in the field may thus need to meet the (rhetorical) challenge of articulating more persuasively what (particularly qualitative) discourse analysis can reveal about lived realities of health and illness.

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