Expression of empathy in a Facebook-based diabetes support group

Abstract

Existing studies show that people suffering from chronic illnesses turn to online health communities not only to share and check relevant factual information but also to receive and express empathy from/to their fellow sufferers. Indeed, along with seeking and providing advice from and to others, expressions of social support, including empathic features, have been found to be central to discourse in online support groups (OSGs). This is the first study to use a pragmatics-based discourse analytic approach that focuses on "empathic communicative acts" (Author 1, 2016) to investigate the expression of empathy on a social networking site (SNS), and specifically in a Facebook support group or FSG. The analysis is applied to 560 messages to a type 2 diabetes FSG and explores how empathy is expressed within the multi-dialogic context of asynchronous interaction. The study helps qualify the supportive value of FSGs and provides the basis for further studies of empathic communication in other SNS contexts.

Keywords: Empathy; empathic communicative acts; advice; Facebook-based support group; diabetes; discourse

1. Introduction

Existing studies show that people suffering from chronic illnesses turn to online health communities to interact with fellow sufferers (e.g. Lamberg, 2003). While this may be partly motivated by their desire to share and check relevant factual information, this interaction also satisfies their need to receive empathy (Rheingold, 1993). Previous research has identified elements of empathic communication (EC) in online support groups (OSGs) within the wider domain of social support (Pfeil and Saphiris, 2007; McCormack and Coulson, 2009). This is the first study to use a pragmatics-based discourse analytic approach to investigate the

expression of empathy on a social networking site (SNS), specifically a Facebook-mediated support group (FSG) for people with type 2 diabetes. The aim of the study is to investigate whether and to what extent:

1. The potential for EC (empathy-seeking and empathy-giving) is realised in a Facebook-mediated community of diabetes-sufferers.
2. The EC is linked to the specific Facebook context.

The pragmatics-based discourse analytic framework used in this study is based on a conceptualization of empathy that comprises its core aspects or core *empathic communicative acts* (ECAs) (as outlined in Author 1, 2016) but is sufficiently flexible to include context-specific features, such as those of an FSG in this case.

Section 2 discusses the notion of EC while section 3 provides a short review of previous studies on interactional dimensions in online support communities with particular reference to empathic aspects. Section 4 clarifies the nature of diabetes as a condition and the value that online peer-support groups may offer sufferers. In section 5 we explain how the data was sampled and the analysis applied to 560 postings to the FSG collected during 2014. This includes clarification and illustration of the analytical framework and coding used. In the final sections we present and discuss the findings and highlight the main theoretical and practical contributions of the study.

2. Empathic communication (EC)

As noted in Hojat's (2007: 15) review of the conceptualization of empathy over time and place, "empathy is a vague concept that has been described sometimes as a cognitive attribute, sometimes as an emotional state of mind and sometimes as a combination of both". As a primarily cognitive phenomenon, empathy is "the ability to understand someone's situation without making it one's own" (MacKay, Hughes and Carver, 1990: 155), while

emotion-based models regard empathy as a form of emotional mirroring experienced by human and non-human animals when appreciating another's (typically negative) emotional state (Hoffman, 1981). When empathy is explored in a communicative context, however, the focus shifts to how this understanding (whether the result of a cognitive, emotive or combined process) is communicated and shapes human interactions. Communicating to others our understanding of their perspective may, therefore, be conceived as a third essential empathic dimension in interactions.

Following Titchener's (1915) initial use of the term empathy to convey "understanding of other human beings", this communicative aspect of empathy has been prominent in psychotherapeutic and medical contexts. A review of medical consultation skills training manuals (Piasecky, 2003; Moulton, 2007; Silverman, Kurtz and Draper, 2005) and of existing linguistic studies of EC in health contexts (particularly, Martinovski, Traum and Marsella, 2007; Suchman et al., 1997; Wynn and Wynn, 2006: 1387) highlights the following core communicative dimensions of empathy in medical contexts (Author 1, 2011):

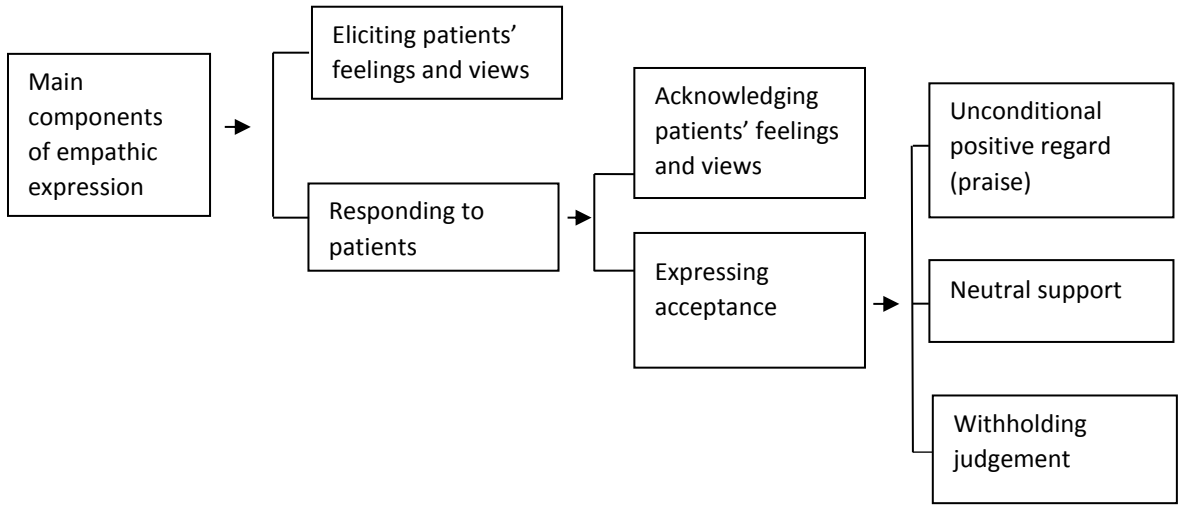
1. Eliciting patients' feelings and views (directly or indirectly, i.e. from available cues)
2. Responding to patients' cues (explicit and implicit) by:

    a) Expressing explicit or implicit understanding and acknowledgement of patients' feelings and views (*I know this is not easy; I see you are upset.*)

    b) Expressing acceptance as: Unconditional positive regard (*You are working very hard to support your family*); 'neutral support' (support even when approval cannot be granted as in *Most smokers struggle to give up smoking; it is normal that you are tempted sometimes*) and withholding of judgement of patients as people.

Across these studies, expressions of acceptance are frequently seen as either integral or closely linked to EC and may, therefore, be included under its core dimensions, as illustrated in Figure 1.

Figure 1: Main components of empathic communication in a clinical context (Author 1, 2011)



3. Empathic communication in online support groups

Given that empathic concern is greater among people who have the same or similar life experiences and life events (Hodges et al., 2010), interaction in online support groups provides the ideal conditions for both expression and perception of empathy. Long term support group membership also means that individual group members move between roles of seeking empathy, advice and information from others, and acting as an 'empathiser' in response to others' requests and disclosures (Pfeil and Zaphiris, 2007). Given the conversational and non-expert context of the exchanges, we would also expect a higher frequency of challenging and questioning messages than, for example, in expert sites, which may be perceived as un-empathic (Smedberg, 2007) or, conversely, reflect the members confidence, ease and familiarity with each other.

Rapport-building and EC have long been recognised and studied as a feature of online interactions (Rheingold, 1993). For example, Loader et al. (2002) categorise online social support in terms of phatic communication and companionship, expressions of emotional support and praise, and instrumental and informational support. Similarly, Morrow (2006)

foregrounds the solidarity-building function of support group members' mutual expressions of positive regard, which could take the form of encouragement, reassurance, praise, unconditional support, rejecting expressed or non-expressed negative self-evaluation, expressing affect and sympathy (e.g. *I'm sorry to hear; good luck, …*). Morrow regards as empathic those messages that acknowledge or anticipate others' feelings, while also noting that the indirect and cautious offering of personalised advice can foster close relationships between OSG members.

Fage-Butler and Jensen (2013) highlight the prominence of emotional support in a thyroid OSG, with forum members consistently expressing solidarity and interest in the long-term welfare of each other. The authors classify empathic expressions as those that indicate the author's capacity to imagine the emotional state of another, which in turn function to acknowledge and legitimise others' experiences of illness. However, Fage-Butler and Jensen also note that much of the forum's discourse was 'info-relational' in which information is embedded and refracted through users' personal experiences. For example, users provide medical information related to diagnosis and treatment in the form of personal narratives that both highlight similarities between users' experiences and create further opportunities for further empathic responses. Likewise, Zummo (2015) highlights the imbrication of informational and affective content in a corpus of messages provided by doctors on several health websites, enabling doctors to respond to patients' queries while also responding empathetically to their emotional needs.

Exploring the nature of social support in an online anorexia discussion forum, McCormack and Coulson (2009) also understand empathy as acknowledging and expressing understanding of others' feelings, though list empathy under expressions of encouragement, which also include good wishes and expression of sorrow and compassion. These authors additionally identify information-giving and -seeking and compliment- and praise-sharing as

central to the social support provided in OSGs. Like Morrow (2006), they foreground the importance of users' references to personal experience, the expression of positive and negative emotional states, and expressions of gratitude.

Locher and Hoffmann (2006) have drawn attention to the rapport-building formulations of advice used in peer-support sites. They note that implicit, mitigated and non-directive forms of advice are preferred, reflecting the members' desire to maintain a symmetric and non-face-threatening interaction. This clearly involves perspective-taking and consideration for the other's needs.

In contrast to the previous studies, Pfeil and Zapharis's (2007) study of a depression discussion board on SeniorNet conceives of empathy in very general terms as falling under activities such as community building, giving medical information and answering medical questions. Nevertheless, the authors identify some specific expressions of support under three main categories, depending on their strength: light support (such as best wishes, generic encouragement, humour and interest), deep support (including reassurance of validity of feelings or action, offers of help (in the form of advice and recommendations) and deep emotional support (emotional support, sympathy and compassion).

This brief review demonstrates the multiple ways in which relationship-building communication in OSGs, and EC specifically, may be conceived. This in turn makes direct comparison between studies difficult. Nevertheless, there does appear to be agreement on the significance of particular expressive dimensions, particularly the acknowledgement of others' feelings, sharing of similar experiences and the potential for conveying empathy through the provision of personal advice and information. These similarities in turn complement the dimensions of empathy found in clinical communication (Author 1, 2011). Our analysis focuses on furthering understanding of what these core communicative dimensions are with specific reference to the FSG context.

Initial studies of FSGs were set up, first of all, to assess the usage of Facebook for specific health concerns, noticing their rapid proliferation and identifying their essential purposes, including their supportive functions (De la Torre-Díez, Díaz-Pernas and Antón-Rodríguez, 2012; Farmer, Holt, Cook and Hearing, 2009; Green et al., 2011). To our knowledge, no studies have so far focused on how this 'support' is articulated in a health-related FSG.

4. Diabetes and online support

Affecting 382 million people globally (Guariguata et al., 2014), diabetes is a progressive condition that, if untreated or poorly managed, can lead to severe complications. Misconceptions about the disorder and, specifically, the link between some forms of the condition and overweight, means that many sufferers do not receive adequate social support and may even be stigmatized. A further challenge is the burden of self-management, involving much trial and error, information mining and learning about how to use medical technologies and how to integrate them into one's lifestyle. Regulating blood glucose levels through diet, exercise and medication is frequently a balancing act fraught with setbacks and frustrations. As a result, it is critical that sufferers have access to relevant information on how to manage their condition and that they can connect with fellow sufferers who may provide an additional source of information and support. In the UK, the absence of concerted government-facilitated peer support groups has left a gap that is increasingly filled by diabetes patients through participation in support groups on SNSs such as Facebook (Authors 2 and 3, 2015).

5. Methodology

As stated above, the aim of our analysis is to examine whether and how support is expressed in the chosen FSG in the form of EC, thereby furthering understanding of the value of FSG to diabetes sufferers.

In this section we describe the data selected for analysis and selection criteria and then present and illustrate the pragmatics-based discourse analytical approach used to analyse the data.

5.1. Data

The FSG *Support for Type 2s*[1] was chosen as it is particularly focused on providing support to members rather than simply information on new medication and technology or social events. The group is rigorously moderated such that nearly all the posts in the group are related to the health of the group members, though not always specifically about their diabetes. During the data collection period, the group grew from 1531 to 1968 members, including three moderators who are the most active group members and between them contribute about 40% of the overall posts in the group as well as a large proportion of the comments. Although the group's moderators are British, from the content of their posts, it appears that a good proportion of the group's members are American and the very vast majority of the people who actively contribute to the group are women. The in-depth qualitative analysis presented in this study is based on posts and comments contributed to the group during the first weeks of August, September and October 2014. Sampling data from across the months allowed us to capture interactions among both users who post frequently in a short period and those who contribute more intermittently. The data comprises 77 new messages and 483 related comments, totalling 560 individual contributions (all referred to as posts hereafter). Beside the three moderators, other 85 members contribute posts in our sampled data.

Facebook-specific affordances are widely exploited including the use of images to display blood glucose readings and sharing diabetes-related memes. Overall, the use of an initial post and subsequent comments and photos format provides the framing for an on-going log of real-time and emotively-charged advice and experience sharing.

Research in language and new media carries with it increasingly complex ethical questions around the public/private nature of online discourse, the control of online content and researchers' orientation to participants (Markham and Buchanan, 2012; Spilioti and Tagg, 2017). These renewed ethical concerns are heightened in the case of online health communication, where human participants are frequently discussing highly personal and potentially stigmatised issues. The extent of our access to and use of data from *Support for Type 2s* was decided through discussion with the group's moderators, who also control the group's membership. These moderators were contacted individually with information regarding the wider project in which this study is situated and a request to observe their group's interactions over fourth months. Following their agreement, the moderators then posted a message within the group seeking members' views on participation in the study and providing a link to the project's institutional webpage and the contact details of the researcher to enable members to discuss any queries outside of the group if they wished to. After one week (a time period decided by the moderators) no member had objected to participation and several had responded positively to the post. The moderators then granted access to the group for the purpose of observation and 'pinned' a message about the study to the top of the group's feed to alert new group members to the on-going observation. This pinned post was then removed at the end of the data collection period. An unknown factor here is the number of group members who implicitly did not consent to the study by avoiding writing posts or comments during the observation period. However, no group member contacted the researchers directly or via moderator to indicate that they had decreased or felt prevented

from posting, suggesting that it the observation did not significantly disrupt the group's interaction.

5.2. Analytical approach

Because empathy may be conveyed through an unpredictable variety of lexico-grammatical formulations ranging from one word to a whole clause complex, the units of discourse analysis must necessarily be pragmatic in nature; that is expressions that can be seen to perform *empathic communicative acts* (ECAs) in the context of specific interactions. No empathy-specific speech act types have been identified within traditional speech act theory (Searle 1976, 1969) but ECAs may be conceptualized as a form of *expressive*, to the extent that they express the interlocutors' feelings about themselves or the world (Searle's initial definition 1976: 12) or the state of mind, the attitudes and the feelings of speakers (Taavitsainen and Jucker, 2010). .

From the expressive dimensions of empathy identified in previous studies (as reviewed in sections 2 and 3 above) and following preliminary analysis of our corpus, we derived a range of relevant communicative acts, distinguishing between *peripheral* ECAs and *core* ECAs. The former include conventionalized expressions of acceptance and positive regard such as greetings, expressions of thanks light concern and sympathy. The latter typify more strictly the response, or *empathy giving* dimensions presented in Figure 1 (specifically, acknowledging/ feelings and views and expressing acceptance) as well as their corpus-specific manifestations such as expressing interest/concern for other posters' circumstances, encouraging/ reassuring/ supportive considerations.

In the context of the FSG posts, core ECAs also include *empathy-seeking* expressions; that is formulations that may potentially trigger empathic responses, such as disclosing feelings, views or personal circumstances and requesting emotional support, encouragement and sympathy. As observed by Pfeil and Zaphiris (2007), empathy giving and empathy

seeking expressions may be used interchangeably by each poster. Finally, we noticed *un-empathic* responses, including rejections of feelings, views, advice or information, discouraging considerations and negative regard. All the relevant ECAs are listed and illustrated below using examples from our corpus[2].

Core empathy-seeking ECAs include:

Disclosing negative/ positive feelings and views, (including humorous views and feelings) and often realized through the use of images as well as words as in:

(1) *This is hell for me*

(2) *So happy my husband is home for a few days*

Disclosing particularly adverse/ favourable circumstances:

(3) *I'm coming down with allergy/ cold eyes watering& nose is running can't hardly breathe & I have to cut half of my bronchi med can't see doc till after sept*

Explicit requests for emotional support, encouragement and sympathy (not just advice or suggestions):

(4) *Can you all keep me in your prayers for tomorrow*.

(5) *Wish me luck all!!!*

Core empathy-giving ECAs include:

Acknowledging actual or potential feelings or endorsing views/agreeing:

(6) *I know its hard but u want ur feet and legs and eyes than you have to* [keep the sugar down]

(7) *Very well said*

Expressing interest or concern for poster's positive or negative circumstances:

(8) *Can they fix that?*

(9) *Good lord have you recorded a weeks readings yet?* 😐

Sharing similar feelings/ experience (without advice):

(10) *I know what it's like being ill x*

(11) *My mom said same thing and hates needles*

Encouraging/ reassuring/ supportive considerations (spontaneous or in response to poster's prompt):

(12) *Hang in there!*

(13) *Diabetes may be a big part of your life, just don't let it stop you from enjoying the other parts*

Expressing acceptance, which, as pointed out in section 3, may take the form of:

Positive regard or praise for an individual, their actions or contribution:

(14) *Keep up the great work!*

(15) *Haha now that's a great idea*

Acceptance of advice or information:

(16) *That may be a route for me to take*

(17) *Good suggestion!*

Indicating availability for further help:

(18) *I am here for anyone who may need a friend*

Peripheral empathy **giving** is conveyed by:

Expression of gratitude, as in *thank you* and *ty*

Expressions of light concern and sympathy such as *sorry to hear that; good luck; good wishes; Oh no!; Great news!; Hope you'll feel better soon!*

Expressions of greeting as in: *Hi* and *Welcome*

We did not, however, include the routine identical phrasing used by the site moderators to periodically welcome new members.

The following un-empathic CAs were observed:

Rejecting or dismissing feelings or views (more or less mitigated):

(19) *Why not arm…lots of people do* [inject there]

(20) *My posts are factual and based on years of clinical experience and continued education* [rejecting previous poster's view: *I find your posts very critical and not very supportive*]

Discouraging, unsupportive considerations:

(21) *[Metformin medication] make[s] u run to the restroom ANY TIME*

Rejection or devaluation of the advice or information received:

(22) *Not all T2's are obese and not every obese person is or gets T2, just not as simple as that*

(23) *In the uk we do not clean the injection site first*

Negative regard (negative judgement of poster or his/her actions or words:

(24) *Never said, I ever have or would!!!!!!* [Implying that previous poster has misinterpreted comment]

(25) *I think it's a silly caption.....it ridicules people taking drugs for whatever the reason maybe*. [Referring to caption posted by another member]

Along with the above, we also observed whether and to what extent forms of advice-seeking or -giving appeared to carry out additional empathic functions, as observed in previous studies (Kouper, 2010; Morrow, 2006). In distinguishing between the problem-focused and emotion-focused social support sought by people under stress, Lazarus (1999) notices that empathy may be employed to support either. It could be argued, therefore, that within a virtual community of 'sufferers', advice as well as information-giving may be placed at one end of an empathic communicative continuum, the problem-focused end, while core formulations (such as acknowledgment of feelings and expression of acceptance) may be placed at the other end of the continuum, the emotion-focused end.

In our corpus, the following forms of empathic advice were identified:

Eliciting experience-sharing advice, in which members ask others to share their experiences as a form of advice:

(26) *Does anyone track their food intake e.g. through myfitnesspal? If so do you know how much fibre you get per day? How do you make sure you get enough?*

Experience-sharing advice seeking, in which members ask for advice by firstly or concomitantly sharing their experiences in relation to which the advice is sought:

(27) *How many nights of 300 or above should I go before I need to go to the ER? I do exercise, & I still can't bring it down. My stuff goes up when I take walks, or ride my bike. I have NO problems with it being low. It NEVER gets low […] I just want to know how many times should I let it get there before calling a doctor?*

It may be argued that all advice-seeking requires the adviser to share his/her experience to some extent but it is the nature and extent of the shared experience in our corpus – mostly negative circumstances faced by the sufferers – that turns much advice seeking into potentially empathy-seeking forms. We distinguished, however, between forms of advice-

linked experience sharing and self-standing experience sharing illustrated under the core empathic forms (examples 5 and 6).

Experience-sharing advice giving, in which members give advice through sharing their experiences, as in:

(28) *But it is also important to make changes like whole wheat and smaller portions of those. I've discovered spaghetti squash and just love it instead of pasta. Little things add up*

(29) *Take care urself get ur sugar down before u end up like me I have only half my feet*

In these instances, too, the experience sharing may invite further empathic responses from other members.

Plain advice giving, responding to members' solicited advice or volunteering unsolicited advice is also present. This form may be empathic only to the extent that all advice given in response to others' advice-seeking or others' shared personal circumstances is arguably empathic as it requires perspective-taking. The perspective taking is, however, particularly noticeable in this corpus through the frequent use of 'you' and the close reference to the advice seekers' specific circumstances. All the same, these examples may best place at the problem-solving end of the EC continuum, for example:

(30) *You should definitely give it a try. First, you should talk with your doctors and see if they think you will qualify for social security disability and or SSI, because their documentation is essential in the decision process*

Along with advice, at the end of the continuum, we noticed the following forms of empathic information- or clarification-seeking or -giving CAs:

Eliciting experience-sharing information, in which members ask others to share their experiences as a form of information:

(31) *Has this helped, [username]? Is it expensive?*

(32) *[Username] were you on medication for diabetes before your stroke and how was your blood sugar running was it high?*

Although these expressions may communicate interest and concern in some contexts, it was clear that, in contexts such as the above, members were primarily seeking information to inform their own situation.

Experience-sharing information or clarification seeking, in which members ask for information by firstly or concomitantly sharing their experiences in relation to which the information is sought:

(33) *I now run 3 x a week but even that isn't enough to get my weight down again. Plus the running is difficult with the high glucose, it's kind of like trying to run in mud. Thyroid meds and thyroid is Under control as is cholesterol. I'm wondering at which point they put you on insulin.*

Experience-sharing information or clarification giving, in which members give information through sharing their experiences:

(34) *I've been told that dentures aren't a good choice for diabetics. I don't qualify for SS. But the medicaide coverage is very good*

Opinion-sharing information-giving in which members provide information that is clearly presented as their opinions, as in:

(35) *They will probably do routine checks to test the feeling and pulses in your feet and chat to you about your symptoms I guess. Haven't been to a foot Dr myself other than for severe verrucas but that's what I guess it would start with*

This is different from disclosing negative or positive views because the opinions are targeted at addressing specific issues. As such, this CA occurs in comment responses to an initial message.

Bare information or clarification-seeking and giving without any experience-sharing, as in:

(36) *What messes with liver?*

(37) *How many grams of carbs are you are you suppose to have daily…*

(38) *This may be a good indicator http://www.ehow.com/decision_7228804_many-grams-fiber-should-daily_.html.*

Eliciting or giving information (as in example 36 to 38) may be seen as indirect advice seeking or giving. The distinction between information and advice is frequently blurred but we have coded as information those instances in which the informative aspect appeared to be dominant and the contribution was given as a response to information- rather and advice-seeking.

In addressing both the seeking and provision of empathy, advice and information, the coding scheme above encompasses the central interactional activities that constitute discourse in online support groups (Fage-Butler and Jensen, 2013; Morrow, 2006). As such, the only material that was not categorized under any of the categories listed above was the standard welcoming words used by the site moderators (see "expressions of greeting" above). An exception to this is the frequent "like" labels ascribed by the group members to each other's posts. It is noticeable that posts typically include a combination of more or less empathic communicative dimensions, such as the following comment, which responds to a post about the author's slow healing injury and question about eligibility for disability payment:

(39) Have heard that you can get disability [payments], have never tried personally. So I don't know how hard or easy to get it **[experience sharing information giving]**- doesn't hurt to try.. **[plain advice giving]** It takes longer to heal for a diabetic, just one of the "what sucks" being diabetic **[empathy seeking: disclosing feeling]**

In these cases the various components have been coded and counted separately.

Firstly, the first two authors conducted the analysis of the first set of posts (August) separately to check a) to what extent the predicted ECAs applied, b) whether additional ECAs were represented and c) rating agreement. We discussed coding discrepancies, adjusting categories and coding until consensus was achieved and repeated this process for the other two sets (September and October). The categories illustrated above are those that were finally applied.

6. Findings

The findings of the analysis are presented below in relation to the four main empathic options illustrated in section 5.2: ECAs (core and peripheral), empathic advice and information giving/seeking, and un-empathic CAs. They are summarised in tables 1 to 3. An example of how the categories were applied to the interactions may also be seen below (example (40))

Table 1: Showing the instances of ECAs (core and peripheral) in the selected corpus

Empathic Dimensions	August 3062 words, 141 posts	Sept 3124 words, 191 posts	Oct 4718 words, 228 posts	Total instances 10904 words, 560 posts
CORE EMPATHY SEEKING-ACTS				
Disclosing feelings	13	18	14	45
Disclosing views	4	13	4	21
Disclosing positive/negative circumstances	27	26	24	77
Requesting emotional support	1	4	0	5
TOTAL	45	61	52	**148**
CORE EMPATHY GIVING ACTS				
Acknowledging feelings	3	1	4	8
Endorsing views	6	10	5	21
Sharing similar feelings/experiences	5	22	15	42
Expressing interest/concern	16	8	5	29
Encouraging/reassuring/supportive considerations	4	6	11	21
Offering help	0	1	2	3

Expressing acceptance (positive regard)	13	7	4	24
Expressing acceptance (advice/info/request)	4	7	2	13
TOTAL	51	62	48	**161**
PERIPHERAL EMPATHY GIVING ACTS				
Expressing sympathy	27	21	28	76
Expressing thanks	23	18	13	54
Greetings	5	14	3	22
TOTAL	55	53	44	**152**

Table 2: Showing the instances of empathic advice and information in the selected corpus

Empathic dimensions	August 3062 words, 141 posts	Sept 3124 words, 191 posts	Oct 4718 words, 228 posts	Total instances 10904 words, 560 posts
ADVICE SEEKING				
Bare advice seeking	0	1	0	1
Advice and experience seeking	1	0	0	1
Advice seeking with experience sharing	2	2	2	6
Advice seeking with experience seeking and sharing	2	0	1	3
TOTAL	5	3	3	**11**
ADVICE GIVING				
Bare advice giving	19	15	18	52
Advice giving with experience sharing	9	1	11	21
TOTAL	28	16	29	**73**
INFORMATION SEEKING				
Bare information seeking	1	2	9	12
Information and experience seeking	1	1	6	8
Info seeking with experience seeking and sharing	1	0	1	2
Info seeking with experience sharing	2	3	2	7
Information with opinion seeking	0	1	0	1
TOTAL	5	7	18	**30**
INFORMATION GIVING				
Bare information giving	9	11	28	48
Information giving with experience sharing	12	21	52	85
Information with opinion sharing	3	5	5	13
TOTAL	24	37	85	**146**

Table 3: Showing the instances of un-empathic CAs in the selected corpus

Un-empathic dimensions	August 3062 words, 141 posts	Sept 3124 words, 191 posts	Oct 4718 words, 228 posts	Total instances 10904 words, 560 posts
Dismissing feelings	0	1	0	1
Dismissing views	0	4	5	9
Discouraging/unsupportive considerations	0	1	0	1
Negative regard	0	2	6	8
Rejecting/devaluating information or advice	5	8	14	27
TOTAL	5	16	25	**46**

ECAs appear at an average of 1.37 per post, with ECAs distributed fairly evenly between posts. That is, the majority of posts contain one or two ECAs while longer posts contain multiple expressions of empathy. However, very few posts were coded as containing five or more ECAs. The tables also show that expressions of empathy are relatively consistent across the three data sets comprising our corpus and that the most frequent forms of ECA include *core empathy giving* CAs (161 instances). Most *core empathy giving* CAs are well represented, with *sharing similar feelings and experiences* being particularly frequent in the September set. The exception is *acknowledging feelings* with eight instances only. This low frequency is particularly noticeable, given the higher frequency of *feeling disclosure* in the corpus (45 instances), indicating that members are missing opportunities to acknowledge others' voiced feelings (the most widely agreed-upon empathic communicative dimension). A closer look, however, shows that 16 out of the 45 instances of *feeling disclosure* are responded to, often by multiple members. The responses are mainly light *sympathy* forms but also include frequent core empathic forms such as *expressing interest/concern* and *encouraging/reassuring/supportive considerations*, sharing *similar feelings or experiences* and *positive regard*. Similarly, out of the 21 views expressed in the corpus, only four are responded to through *sharing similar experiences or views*. However, members' views are

also endorsed through expressions of agreement with the advice and information received, under *acceptance (advice/info/request)*.

As a whole, *core empathy-giving* CAs outnumber *core empathy seeking* CAs (148 instances). Members frequently respond to *empathy seeking* acts by *sharing similar experiences and feelings* (42 instances), *expressing interest and concern* (29 instances) and *making encouraging considerations* (21 instances), and multiple members may respond to a single *empathy seeking* message. This produces the impression of essentially emotionally responsive members and is further reinforced by the frequency in expressions of *sympathy* (76 instances). While, in a clinical consultation context, sympathy is strongly discouraged as a poor substitute for empathy (Hojat, 2007), frequent expressions of sympathy such as 'get well soon' suggest they are valued by members of *Support for Type 2s*. Even though these expressions fail to convey the writer's deeper understanding of the other's voiced or unvoiced feelings and views, they do nevertheless express some engagement with the other's emotive state, as do *thanking* and *greeting* (54 and 22 instances respectively). If these 'peripheral' forms are included, the *empathy giving* contributions amount to a total of 313 instances over 560 messages.

The members' preferred *empathy seeking* mode is *disclosing positive/negative circumstances* (77 instances), which is as common as the more explicit *expression of feelings* (45 instances) and *views* (21 instances). This disclosing frequently happens in the initial posts and is responded to with empathy, advice or information giving in the comments.

The discrepancy between *seeking* and *giving* contributions is even more noticeable for advice and information. While *advice is sought* more or less explicitly in 11 cases and *information* in 30 cases overall, members give *advice* in 73 instances and *information* in as much as 146 instances (*information giving* is particularly frequent in the October set accounting for 85 of these instances). This clearly indicates that members feel that the

explicitly supportive function of the platform is, to a large extent, fulfilled by *advice* and *information giving*, which, taken together, amounts to 219 instances in our corpus. This is still less, however, than the support offered through *core and peripheral empathy giving* (313 instances, as mentioned above).

Furthermore, it is evident that most *advice and information seeking* and *giving* include a component of *experience sharing*, which reduces the face-threatening potential of these CAs and encourages responses of gratitude, acceptance and further sharing (Morrow, 2006). This is different, for example, from the advice and information giving forms found in Ask-the-Expert sites, which, though often mitigated, never include reciprocal experience sharing between expert and service user (Author, 2016). Even when not directly responded to, *experience sharing* appears to foster an interactional environment in which empathic perspective-taking is assumed, relied on and further extended.

Un-empathic forms are overall relatively uncommon (46) and tend to appear in clusters around particularly fraught exchanges and include *dismissing views* (9 instances), *negative regard* (8 instances) and, more noticeably, *rejecting/devaluating information or advice* (27 instances). The majority are mitigated or concern relatively trivial issues such as differences in food taste, where the risks to others' esteem are small. Although clearly disruptive in places, members do not overall appear to use the site to vent anger or frustration at each other.

We did not detect any significant links between specific FSG members and the nature of their contributions other than a clear difference between very few active members (including the three site moderators and other five members) and those who take part only occasionally (the majority). Although the moderators' posts explicitly orient to their roles by welcoming new members, instigating most of the interactions, providing a great deal of advice, information, sympathy and thanks, they also frequently seek empathic responses from

the other members by disclosing deleterious circumstances and experiences. Along with the other five most active members, they are equally involved in all the forms of EC presented above. They also frequently respond to others' comments, sometimes seemingly extending exchanges that do not appear particularly productive, occasionally even leading to disagreements and, noticeably, most of the un-empathic exchanges.

The most noticeable aspect that appears to be shaped by the Facebook exchange style is the intertwining of the contributions, leading to what we would call the cumulative and collective construction of a supportive empathic environment. This is characterized by a clustering of empathic contributions for which target members are not always clear and in which empathic responses to one member simultaneously work as empathy giving and seeking comments aimed at other members. This is what Herring (1999: 10) would consider a case of "hyperpersonal" (rather than interpersonal) interaction typical of CMC and may be observed below in example 40 from the October set. The CAs performed are indicated in square brackets and bold font. The names of the contributors are replaced by letters. The comments were all sent on the same night:

(40) **A(1) [first post 00:50)**: Hi, all. **[greeting]** Looking for a little advice. I don't take any medicines for my diabetes but the one thing that thoroughly confuses me is why my morning glucose level is always high for me? Fortunately I have a great doctor who recognized things early and got me started on a weight/diet controlled program early but I was in denial and faltered over the last year. My most recent A1c was over 8 so I'm not sure what he is going to recommend now. **[advice seeking and experience sharing]** I hope he gives me another chance to self-correct now that I've been slapped in the face with the result and will truly face the challenge. **[expressing feelings]** Any advice or help on how to address the morning glucose? Throughout the day they aren't bad. **[continuing advice seeking and experience sharing]** Thanks in advance! **[thanking]**

B (01:04): Does your insurance have a nutritionist you can have phone appointments with & mail you info? I just started working with one. **[advice giving with experience sharing]**

A(2) (01:10): Yes I believe my insurance does pay for a nutritionist. That may be a route for me to take. **[accepting advice]** Not really thinking too clearly tonight since I see my Dr. in the morning and I'm worried about it. **[expressing feelings]** Thanks! **[thanking]**

C (01:40): Low carbs and you probably need metformin to help decrease the amount of glucose released by the liver. **[bare advice giving]**

D (01:41): It's called dawn phenomenon. Only way I can control it is long acting evening insulin injection. **[information giving with experience sharing]**

E (01:44) I too am able to control mine through diet and exercise**...[sharing similar experience]** it isn't easy...took me a little time to figure it all out. But now I see my levels rising**...[expressing encouragement]** you must remember this is a progressive disease and sometimes no matter what we do we just can't get the numbers we want. **[further encouragement]** Seeing a nutritionist is a great place to start! **[praising B]** Good luck to you. **[sympathy]**

F (01:53) Definitely dawn phenomenon... **[agreeing with D's information]** Wish I could with diet n exercise. **[expressing feelings]** Did long acting insulin alone for a bit, then had to add mealtime insulin **[information giving with experience sharing]**

G (01:55): Your A1C at 8 means your sugar levels are almost 200 daily. Low-carbs, low fats, low sugars etc. Once you get that A1C down, diet and exercise might be all you need. Awareness is the key. **[bare information]** I blew it. I am paying now with nerve damage, and all diabetic damage is irreversible**.[disclosing negative circumstances]**

H (02:05): I started having my husband eat two cinnamon graham crackers it lowered his blood sugar 10 points cinnamon is great for levelling blood sugar out. **[advice giving with experience sharing]**

A(3) (03:04): Thank you for all the replies. They are much appreciated. **[thanking/accepting advice]**

While A elicits both advice and empathy (the latter by *expressing his feelings* and *sharing his negative experience*), the first three responses (from B, C and D) only address the former by *giving* some *advice* and *information*. It is only E who responds empathically to A by *sharing her similar experience* and *expressing encouragement* along with *sympathy* (and, interestingly, no *advice*), while also *expressing positive regard* for B (endorsing her information). Rather than responding to user A, F is then primarily responding empathically to D by *endorsing her view* (that A is experiencing "dawn phenomenon") and *expressing her own feelings* before *giving her own information*. G returns to the main focus of the exchange and gives further *information* to A. She does not, however, respond to A's empathy seeking but *seeks empathy* by *disclosing her own negative circumstances* (which no one responds to) while also underscoring the necessity of A making changes to her diabetes management (*endorsing* B's *view*). H then provides further *advice* to A and A *expresses collective thanks and appreciation* for the contributions as a whole.

The collective construction of a supportive empathic environment via written contributions is complemented by the social media practices of sharing images (photos)[3]. Sharing images with humorous captions is a common strategy of community building among users of online support groups (Author 3 and Author 2, 2015). Such memes (examples 41 and 42 below) refer to collective experiences of living with diabetes that anyone joining the group can identify with (when shared to the group, such memes do not have target addressees).

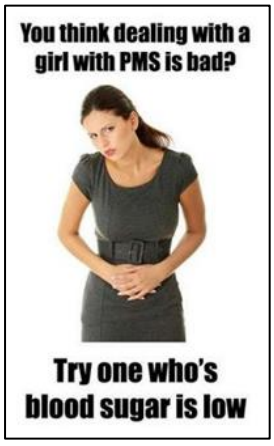
(41)

Figure 2

Does this happen to you too?

(42)

Figure 3



I think both boys and girls can laugh at this one

To newcomers who may be 'lurking' before contributing to discussions the humorous content in such posts is a signal that the communication in the group is characterised by a non-face-threatening interaction, a pre-condition for EC.

7. Discussion

The findings from our analysis show that EC is overall well represented in the *Support for Type 2s* FSG, confirming that the site does indeed offer diabetes sufferers a platform for sharing their often harrowing experiences while receiving understanding, encouragement and sympathy as well as experientially-based advice and information.

As indicated by the high frequency of the *information giving with experience sharing* code, users' provision of medical information and advice was frequently suffused with relational content that functioned to create solidarity with other users. In this regard, our analysis reflects the findings of Morrow (2006) and Fage-Butler and Jensen's (2013) studies of interactions in non-SNS support fora. At the same time, however, the findings also highlight a potentially problematic factor arising, at least partly, from Facebook's format, and particularly its post-comments organisation. Like other forms of computer-mediated discourse (see Herring 1999), Facebook's interactional platform presents challenges to cohesiveness and conventional conversational turn-taking, meaning that responding CAs are often misaligned with eliciting CAs. While Facebook allows for users' names to be tagged into a post or comment, this was very seldom found in our data. Comments may be added to a post at any time, continuing exchanges over longer periods or stopping them abruptly. Members may respond belatedly to the original posts or respond after a few seconds to the immediately preceding comments. The informality of the communication and possibility of a near-immediate reply encourages members to seek advice and information on immediate health problems occurring as they write, neglecting older requests for information and

support. For example, none of the members in our sampled data comment on whether the advice and information offered on the site proved to be useful to them at a later date, thereby also missing an opportunity to convey their positive regard. Overall, group members do not, therefore, appear to exploit the potential advantage offered by asynchronous sites to refer back to members' preceding contributions, which was seen to promote the construction of rapport-building extended joking sequences in the CMC sites observed by Herring (1999).

'Promotional' considerations also affect the value and cohesiveness of Facebook exchanges to the extent that moderators "become increasingly focused […] on presence: on constant updates to keep the flow of the page and maintain its visibility for their members (in the newsfeeds)" and Facebook platforms have a tendency to pursue "exchange value" over the "use value" of the platform (Kaun and Stiernsted, 2012: 1164). This is evidenced, for example, by the fact that moderators contribute much more than all other group members and may, partly, explain why empathic responses – although very frequent overall – may not always be given when elicited (as in example 40). This applies particularly when members disclose negative or positive circumstances, particularly as part of advice/information seeking (18 instances), and are then provided with advice and information rather than, or as well as, empathy. This may not be problematic at all, depending on members' expectations. Those members who are experiencing particularly significant difficulties and looking for encouragement and understanding may not find sufficient support beyond sympathy, advice and information. Some may actually benefit from disclosing their circumstances in itself, deriving support from the knowledge that fellow sufferers can relate to them, whether they explicitly acknowledge this or not. For others, whose objective is primarily to identify viable strategies to manage their diabetes, this is exactly what they look for and value, as stated in some comments in the corpus.

Interviews with diabetes sufferers contributing to a number of different Facebook-supported diabetes sites (Author 3 and Author 2, 2015) overall reveal that many sufferers do appreciate this form of interaction and the emotional support they can derive from contributing. However, the benefits they mention do not necessarily relate to the reciprocity of the exchanges; those members who consider themselves knowledgeable about the condition and its management appear to gain some gratification from the fact that they can share their experiences and be of some use to others. Given the relatively low frequency of empathy (as well as advice and information) seeking, it could indeed be argued that the *Help for Type 2s* group members are, actually, not exploiting the site particularly to vent their emotions and explicitly *seek* support but rather to *provide* support. This is different from the finding emerging from Pfeil and Zaphiris' (2007) study of EC in a message board for older people, showing that members are, overall, more likely to adopt the role of empathy-seekers rather than that of empathy-givers.

Other respondents in Author 3 and Author 2's study (2015) stated that they value the recognition they get from fellow sufferers on achieving particular targets. In the exchanges we observed, however, expressions of positive regard are relatively infrequent (24 instances) and this may be disappointing for some. While the above analysis has focused on linguistic expressions of empathy, Facebook's salient 'liking' option is used frequently in the group and may provide a non-verbal marker of positive regard, though the multiple functions of the Like response means it cannot be said to always unequivocally convey agreement or endorsement. For some contributors, however, receiving Likes may be experienced as adding a generally 'approving' and, therefore, supportive dimension to the interactional environment. In the time since this study's data was collected, Facebook has implemented a 'reactions' system that supplements the 'like' button with iconic responses such as 'wow',

'sad' and 'angry', which enable users to provide more specific – and hence potentially more obviously empathic – non-verbal expressions.

Others still appreciate the encouragement they derive from knowing that other members are going through similar difficult experiences. For them, reading about others' experiences may be of greater empathic value than receiving specific empathic responses, which in turn accounts for the large proportion of group members who do not actively contribute to its discussions, or do so infrequently.

Commenting on the self-formation potential of Facebook interactions in general, Sauter (2014) notices that "users simultaneously share details about their lives and seek out help and advice to guide and optimize their behaviours" oscillating between "self-engagement, self-presentation and the demand for guidance". In health-related FSGs, such as *Help for Type 2s*, this identity-building dynamic may, arguably, combine with their supportive function to give rise to the mixed picture observed in our findings.

8. Conclusion

The study presented here adds to the ongoing exploration of the concept of empathy, with particular reference to its pragmatic communicative dimensions. It contributes to the understanding of how empathy may be and is communicated in online peer-support groups, particularly the understudied Facebook environment and its specific affordances. It further offers a flexible methodological template and coding options that may be applied to explore interactions in other online groups, whether Facebook-based or not. While complex, this coding scheme is intended to encompass the diverse forms that the seeking and provision of empathy may take in interaction. The analysis has demonstrated the extent to which EC is shaped by the dialogic context in which it takes place and has drawn further attention to the fact that empathy may be expressed and perceived differently, depending on the interlocutors' perspectives and expectations. These insights may be integrated with those

emerging from other similar research (e.g. Pfeil and Zaphiris, 2007) to help design online communities that support EC, when this is considered desirable.

We are conscious that, given the relatively small size of our corpus, further analysis would be needed to strengthen our findings. Interviews with the specific site contributors would also help clarify the level of support they are deriving or not from contributing more or less actively to the site. Further insight would additionally be gained from contrasting the findings from our analysis with the analysis of other dedicated SNS for diabetes sufferers, using the same analytical framework.

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[1] At the group users' request, this is a pseudonym.
[2] In these examples and elsewhere, participants' messages are reproduced with their original orthography.
[3] While the combination of images and photos with written text is common in Facebook generally, they are atypically rare in our corpus (eight instances, of which six are in the September set).

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Author 1 (2016) [reference details omitted]

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