Patient perceptions of empathy in primary care telephone consultations: A mixed methods study

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# CRediT authorship contribution statement

Jane Vennik: Conceptualization, Data curation, Formal analysis, Writing – original draft, review & editing, Project administration. Stephanie Hughes: Data curation, Writing – review & editing. Emily Lyness: Data curation, Formal analysis, Writing – review & editing. Clare McDermott: Formal analysis, Writing – review & editing. Kirsten A Smith: Data curation, Writing – review & editing. Mary Steele: Data curation, Writing – review & editing. Jennifer Bostock: Writing – review & editing. Jeremy Howick: Funding acquisition, Writing – review & editing. Paul Little: Funding acquisition, Writing – review & editing. Geraldine Leydon: Writing – review & editing. Christian Mallen: Funding acquisition, Writing – review & editing. Leanne Morrison: Funding acquisition, Writing – review & editing. Beth Stuart: Funding acquisition, Supervision, Writing – review & editing. Hazel Everitt: Funding acquisition, Supervision, Writing – review & editing. Felicity L Bishop: Funding acquisition, Conceptualization, Supervision, Formal analysis, Writing – original draft, review & editing.

# Highlights

* Clinical empathy can improve patient outcomes
* Patients reported good clinical empathy in primary care telephone consultations
* Patients rated telephone consultations slightly less empathic than other types
* We show how telephone consultations may facilitate and/or hinder clinical empathy
* Verbal signs of listening may enhance empathy in telephone consultations

# Abstract (200 words)

## Objective

Clinical empathy can enhance patient outcomes. This study examined patients’ perceptions of empathy in primary care consultations delivered by telephone.

## Methods

A mixed methods study was nested in a larger feasibility study conducted May-October 2020. Adults reporting a UK primary care consultation in the previous 2 weeks completed an online survey. A sample of survey respondents participated in a semi-structured qualitative interview. Interviews were analysed thematically.

## Results

Survey respondents (n=359) rated practitioners as between ‘good’ and ‘very good’ at established patient-reported indicators of clinical empathy. Telephone consultations were rated slightly lower than face-to-face or other consultations. 30 survey respondents were interviewed. Three qualitative themes identified how telephone consultations can shape clinical empathy: setting for an empathic encounter; feeling connected; being acknowledged.

## Conclusion

Primary care patients typically perceive good levels of clinical empathy in telephone consultations; specific features of telephone consultations may facilitate and/or hinder clinical empathy.

## Practice Implications

To ensure patients feel listened to, acknowledged and understood, practitioners may need to increase their empathic verbalisations in telephone consultations. By using verbal responses to demonstrate active listening and by clearly describing and/or implementing next steps in management, practitioners may be able to enhance clinical empathy in telephone consultations.

Keywords: clinical empathy; primary healthcare; communication; general practice; mixed methods; qualitative

# 1. Introduction

Empathy in medical consultations can improve patient satisfaction, quality of life and pain outcomes[1-5]. Unlike everyday notions of empathy, empathy within medical consultations (i.e., clinical empathy), does not require practitioners to vicariously experience their patients’ emotions. Instead, clinical empathy involves practitioners working to identify and understand their patient’s perspective including their emotions, concerns and expectations, and behaving in ways that checks and communicates this understanding and uses it therapeutically[6]. Clinical empathy helps patients feel listened to and supported; it lowers anxiety and distress and enables more involvement in ongoing healthcare and self-management[3,7,8].

Specific practitioner verbal and non-verbal behaviours potentially contributing to empathic communication in medical consultations[9-11] are summarised in Table 1. These practitioner behaviours, and patients’ experiences of them, are probably shaped by the modality through which consultations are delivered. At the onset of the COVID-19 pandemic, within the context of existing policy to increase remote consulting[12], there was a rapid move towards telephone consulting in UK primary care to reduce face-to-face contact: up to 89% of consultations were delivered by telephone during the pandemic’s peak compared to 10% in 2019[13]. This increase was driven by a move to total triage, where all patients were required to have a telephone call prior to a consultation. Whilst rates of telephone consulting subsequently decreased (e.g., to 34% by April 2021) they are unlikely to return to pre-COVID levels[14].

When consultation modalities change it is important to understand how empathic communication can be retained. A rapid review of empathy in remote consultations found that practitioners can express empathy over the telephone but find it more challenging and are less confident than when consulting in person, due partly due to tendencies to focus on illness rather than the patient-as-a-person and communication difficulties posed by silences and no visual cues[15]. Primary care research has found less social talk and rapport-building in telephone than face-to-face consultations[16,17] but has not focussed on empathy. This mixed methods study aimed to explore patients’ perceptions of clinical empathy in primary care telephone consultations during the early COVID-19 pandemic period (May to October 2020).

# 2. Methods

## 2.1 Design

This mixed methods study was nested within a larger online survey evaluating the feasibility of an intervention to enhance empathic and optimistic communication in primary care consultations[18]. The quantitative component entailed an online survey of patients’ perceptions of empathy in primary care consultations delivered face-to-face, by telephone, or through multiple modalities (i.e., those involving a combination of at least two modalities such as face-to-face, telephone, email and/or video). The qualitative component entailed a primarily inductive thematic analysis of patients’ perceptions of empathy in primary care consultations, elicited through semi-structured telephone interviews. We used an embedded mixed methods design[19] in which the qualitative component was nested in the quantitative component: interviewees were purposively sampled from survey respondents. Consistent with our aims, we emphasised the qualitative component over the quantitative component, as qualitative approaches are better suited to exploring participants’ perspectives in depth. The qualitative findings were also used to help explain the quantitative results.

## 2.2 Patient involvement

Our public contributor, a patient with chronic pain who regularly uses primary care services, contributed to study design, recruitment strategies, the topic guide, and manuscript preparation.

## 2.3 Ethical Approval

Ethical approval was granted by the South Central – Hampshire B Research Ethics Committee on 6th December 2019 (19/SC/0553).

## 2.4 Participant recruitment

We advertised the feasibility study in Southern England, the Midlands, London, and Scotland through social and traditional media, community noticeboards, and GP surgeries. Eligible individuals were adults self-reporting a primary care consultation (by any modality) in the previous two weeks with a GP, nurse, physiotherapist or other primary care practitioner. Adverts directed people to the study website for information and consent.

## 2.5 Quantitative data collection

Data were collected between May and October 2020 using the web-based survey tool Qualtrics (Qualtrics, Provo, UT). Survey respondents reported socio-demographic and consultation characteristics and rated their practitioners’ clinical empathy on the 10-item consultation and relational empathy (CARE) scale[10]. Additional measures and a 2-week follow-up questionnaire were included in the larger feasibility study that will be reported elsewhere. The CARE was developed and validated in UK primary care; respondents rate their practitioner on 10 aspects of clinical empathy using 5 response options: poor (1), fair (2), good (3), very good (4), excellent (5). Items are summed giving total scores out of 50; higher scores indicate greater perceived clinical empathy. Of 437 feasibility study participants, 78 did not answer the CARE and are excluded from the present study.

The larger feasibility study aimed to recruit 180 participants and did not require a formal sample size calculation. Due to the exploratory nature of this smaller nested study, no further power calculations were undertaken.

## 2.6 Qualitative data collection

We emailed a purposefully varied sample of 66 survey respondents to take part in a telephone interview, aiming to include people with a range of age, gender, ethnicity, education level, pain condition and OA (the broader feasibility trial had an interest in pain and OA), consultation modality (telephone, face-to-face or multiple) and practitioner profession. Thirty-three people responded to invitations and 30 were interviewed (3 subsequently declined without giving a reason). We interviewed mostly telephone consulters but included other modalities to facilitate comparison and obtain a broader picture of clinical empathy during the study period. Researchers obtained verbal consent prior to interview.

Telephone interviews were conducted by three experienced female qualitative researchers (KS, JV, MS) and lasted on average 28 minutes (range 15 to 43 minutes). Interviews were audio-recorded, transcribed verbatim by a professional service, and anonymised using pseudonyms. Interviewees were given £20 shopping vouchers.

A topic guide was used, developed and piloted by the study team. Open-ended questions asked about experiences of the consultation, perceptions of practitioner empathy and optimism, and experiences of the survey. Because clinical empathy is a very specific topic which patients may not be used to reflecting on in-depth, we used the CARE items to prompt patients to consider different aspects of clinical empathy including how they perceived the practitioner to be at asking questions, listening, understanding, demonstrating compassion, explaining, and making an action plan. Participants were encouraged to elaborate on their views and experiences of recent primary care consultations. This paper focuses on participants’ perceptions of practitioner empathy, we will report separately on participants’ perceptions of practitioner optimism and experiences of the survey.

## 2.7 Data analysis

Survey responses were downloaded and imported into IBM SPSS v28. Missing values on CARE items were replaced with the participant’s individual mean score on completed CARE items. Descriptive statistics were used to summarise the data and one-way ANOVA and between-group t-tests were used to compare groups based on consultation modality. The threshold for statistical significance was alpha of .05.

We used NVivo12[20] to facilitate data management and thematic analysis[21] to analyse the transcribed interviews. The analysis presented in this paper was led by JV and commenced with familiarisation of the first five interviews through re-reading of transcripts and listening to recorded interviews. Initial ideas and concepts related to interviewees’ perceptions of clinical empathy within the context of their experiences of the consultation more broadly were documented. Data were then systematically coded using descriptive labels. Early coding was discussed with FB, HE, LM, SH, KS, MS, EL and LM. Codes were then merged, refined and relabelled, and a coding manual was developed as an analytic aid and audit trail, which included code names, descriptions and exemplar quotations. The coding manual was then applied to the remaining transcripts by JV and CM and revised as necessary in response to the ongoing analysis of the complete data corpus. Most interviewees had experienced a telephone consultation alone or together with another modality; they formed the basis of our analysis. Interviewees who only experienced a face-to-face consultation were also included mainly for comparison purposes. Initial ideas and concepts were generated by exploring patterns and connections between codes and initial themes were thus developed. These were discussed with the wider team before developing final conceptual themes and sub-themes which were interpreted in relation to purported components of clinical empathy (Table 1) and survey results. Illustrative quotes included below have been selected for typicality and/or eloquence and are attributed to individual participants using pseudonyms.

# 3. Results

## 3.1 Participant characteristics

Characteristics of survey respondents, interviewees and their consultations are presented in Tables 2 and 3. Most participants were female, aged 60-79, and White. Sixty-four percent had consultations conducted solely on the telephone, 16% had solely face-to-face consultations, 16% had consultations involving multiple modalities (e.g., telephone and face-to-face, or telephone and video) and only 4% had consultations conducted through other single modalities (e.g., video). Most consultations (81%) were with GPs and 52% concerned pain (reflecting the larger feasibility study). Interviewees had similar characteristics to survey respondents.

*Insert Tables 2 and 3 Here*

## 3.2 Quantitative Component: Patients’ Ratings of Clinical Empathy

On average survey respondents rated practitioners as between ‘good’ and ‘very good’ on indicators of clinical empathy (total CARE score M=38.10; SD=12.23, n=359). Comparing telephone, face-to-face, and multiple-modality consultations, there was a small but significant effect of consultation modality on clinical empathy ratings (F(2,341)=3.56,p=0.03). Telephone consultations were rated slightly lower (M=37.05, SD=12.47, n=229) than face-to-face consultations (M=40.39, SD=11.31, n=56) and consultations involving multiple modalities (M=41.03, SD=11.43, n=59). The difference between telephone and face-to-face consultation was not statistically significant (t(283)=-1.83, p=0.07); the difference between telephone and multiple modality consultations was statistically significant (t(286)=-2.23, p=0.03). Individual CARE items were each rated on average at least 3.5 out of 5and were consistently rated slightly lower by patients rating telephone consultations compared to patients rating face-to-face or multiple-modality consultations (Figure 1).

## 3.3 Qualitative Component: Patients’ Perceptions of Clinical Empathy

Our qualitative analysis identified three key themes that captured how patients perceived clinical empathy in primary care telephone consultations: setting for an empathic encounter; feeling connected; and being acknowledged.

## 3.3.1 Settings for an empathic encounter

Telephone consultations appeared to facilitate clinical empathy when held in patients’ own homes, when they felt unhurried, and when they involved a familiar practitioner. Interviewees reported that being in their own familiar home surroundings for telephone consultations contributed to a more relaxed conversation than when consulting face-to-face which made some feel more confident in discussing potentially sensitive matters and/or making requests. For example, Sybil (72 years) described how having a telephone consultation with her own GP about her bowel symptoms “*worked very well for me, because I was at home and I felt comfortable and I felt comfortable in explaining the changes that concerned me*.”

In comparison, some interviewees felt the telephone hindered the open communication needed for clinical empathy. Some missed their practitioner being able to make inferences from visual cues about feelings without the patient needing them to verbalise them. For example, Nadia (27 years) said “*I'm quite an anxious person. I think if you met me in person, I think it would be more obvious*.” Some, like Shirley (71 years), found it difficult to explain concerns without being able to use gesture and facial expressions: “*I'm waving my hands around here as if I'm talking to you and it's easier sometimes to explain to people face to face how you feel about something or what the problem actually is*.” Others felt they were more likely to forget to say things or less likely to ask questions on the telephone. For example, Sally (71 years) said: “*sometimes when I've had a telephone appointment and I'll put the phone down and think ‘oh, I didn't say that’ or didn’t say something you know. And then the moments lost, isn't it?*”

Interviewees often described telephone consultations as unhurried: “*I didn’t feel at all pressed*” (Kitty, 76). Practitioners put them at ease by allowing them time to talk about their concerns without feeling rushed. However, when compared with face-to-face consultations, interviewees described having little concept of how busy the practitioner was during telephone consultations for example without the visual cues of a busy waiting room in face-to-face appointments. The lack of body language, gesture, and facial expression on the telephone also meant that some interviewees found it difficult to know when to stop talking. Nadia (27) described this clearly “*I think in the face-to-face because there would be body language, I would know when they would want me to stop, because I'm staring at the wall, I don't know what I should be talking about or did they want me to stop, so I'd just keep going on about my dinner or whatever*.”

Most interviewees reported feeling more at ease if they had previously consulted with the practitioner, either by telephone or face-to-face in the practice. Knowing the practitioner facilitated more open and easy conversations, and an expectation that the practitioner knew their medical history. Some reported hesitation and anxiety if they didn’t know the doctor. However, Walter (63) was typical in finding this did not actually hinder consultations: “*I'd never heard his name or met him but his manner on the phone was such that you didn't have a problem opening up to him*.”

## 3.3.2 Feeling connected through manner and questioning

Interviewees felt connected to their practitioner when they had an engaging telephone manner and asked lots of questions. Interviewees valued practitioners’ pleasant, warm and friendly telephone manner and felt this could help them to feel cared for. They appreciated practitioners being straightforward and direct and speaking to the on the same level, which engendered trust and put them at ease. For example, Kim (37) described how her GP’s “tone was not condescending, and I don't know, I just felt like he was at my level.”

Interviewees felt less connected to practitioners when they appeared more serious and formal on the telephone compared to face-to-face consultations. For example, Sandra (70) described her GP as being a “*a little more stern”* and “*in charge”* compared to their usual face-to-face interactions and Amelia (31) felt telephone consultations “*lose some of the friendliness that you might have in a face-to-face conversation*.” Being unable to see practitioners’ facial expressions, head movements, eye contact and gestures also made it harder for some interviewees to feel connected to their practitioner. For example, Dean said: “*You need that interaction of looking at people, you know, getting body language, all that business that you don't get on the phone.”*

Occasionally patients experienced more fundamental challenges that prevented developing a sense of connection on the telephone, such as difficulty hearing a softly spoken practitioner or difficulty understanding a practitioner with an accent.

Interviewees reported that practitioners elicited their concerns effectively during telephone consultations. Some interviewees felt questioning was more extensive in telephone consultations and reported being asked to describe their problems in more detail than they might have done in face-to-face consultations. This detailed enquiry took the form of practitioners asking general open-ended questions to encourage patients to elaborate on their concerns as well as more nuanced clinical questions and questions following up on what a patient had just said. This gave the impression that the practitioner was being thorough, was actively listening to their responses and was seeking to fully understand their perspective. For example, Sophie (34) described how she felt “*really listened to. I thought that she'd asked me all sorts of questions and some didn't feel relevant because obviously I'm not a medical doctor, I don't know why she was asking them, but they must have made sense to her so I was really pleased with it to be honest.*”

## 3.3.3 Being acknowledged, listened to and cared for

Most interviewees felt that the practitioner was paying attention to them and listening carefully during telephone consultations, and this validated their help-seeking, making them feel they were right to consult. For example, Alana (36) described how her GP “*didn’t rush through anything. She didn't make me feel like I was wasting her time and she had time to listen to what the situation was and to look into what might have caused the problem*.”

However, other interviewees reported having difficulty determining whether a practitioner was really listening during telephone consultations or whether they were doing something else at the same time. This was particularly evident if there were periods of silence in the consultation or if the practitioner does not appear to respond to what the patient has just said. For example, Kelly (58) said “*I've spoken to other doctors and you just think hello, are you there? [Laughs] That sounds so bad, but you don't actually know if they've actually taken in a word you've said; you really don't*.”

Most interviewees described finding it easier to determine whether a practitioner was paying attention in face-to-face consultations, when they can see practitioners using eye contact, turning towards them, and not using the computer while they are talking: “*She listens, she looks you in the eye and talks to you rather than at you*” (Nell, 78). In the absence of these visual cues to listening in telephone consultations, interviewees described knowing that a practitioner was listening from their verbal responses including relevant advice, checking they correctly understood the patient and referring to their medical history. For example, Robin (30) described how her GP “*was asking me a lot of the questions and then anything that I was asking him, or anything I was telling him, he would come back with a really good response or something that I could do about whatever the issue was.*”

While most interviewees felt listened to in telephone consultations some described being interrupted or talked over by practitioners. Interruptions can make patients think the practitioner is ‘*bored’* with the consultation, potentially negating impressions of more empathic attentive listening behaviours. Dennis (68) described how “*a couple times I seemed to be cut short when I was trying to explain the extent or give examples of the limitations like movements and the pain that it was causing*.”

Many interviewees felt that practitioners conveyed concern and care during telephone consultations verbally by asking about their feelings and the impacts of health issues on daily life. Interviewees valued practitioners explicitly acknowledging or validating any difficulties they had shared. For example, Kim (37) described how her symptoms were “*affecting my sleep. So, I couldn't lie on my front, I couldn't lay on my side. And yeah, he did show compassion, and […] for someone to actually acknowledge that it was an issue, it felt reassuring*.” Interviewees also valued and felt cared for when practitioners explicitly checked that they had correctly understood what patients told them and when they implemented further investigations, referrals, or treatments or took other actions to follow-up with the patient. For example, Shirley (71) described her doctor phoning her back to explain test results after an earlier telephone consultation and thought “*that shows proper concern”*.

# 4. Discussion and Conclusion

## 4.1 Discussion

This mixed methods study explored patients’ perceptions of clinical empathy in primary care consultations from May to October 2020, when the COVID-19 pandemic triggered a rapid acceleration of uptake of telephone and other remote consultation modalities. The quantitative component, a descriptive analysis of data from a nationwide web-based survey, found that patients rated practitioner empathy as good but consistently slightly lower after telephone consultations than face-to-face or multiple-modality consultations. The qualitative component, a thematic analysis of interviews with 30 purposively sampled survey respondents, explored patients’ perceptions in more depth and identified ways in which telephone consultations appear capable of both facilitating and hindering clinical empathy.

A meta-analysis found that the average CARE score in 64 independent studies was 40.48 (CI 39.24, 41.72) and 43.07 (CI 42.11, 44.04) in a subset of 23 UK studies[22]. Population norms for the CARE derived from Scottish General Practice are 43.0 (CI 42.1, 43.9) [23]. At 40.39 (CI 37.36, 43.42) the average CARE score for face-to-face consultations in our study was only slightly lower than the previously reported averages and norms (primarily based on face-to-face consultations). Our survey was fielded during the COVID-19 pandemic in summer 2020 when there were considerable uncertainties and rapid changes to daily lives and the organisation and delivery of primary care services[13,24,25]; this wider context may have impacted clinicians’ communication and patients’ perceptions of empathy. A pan-European study of primary care for respiratory tract infections during spring/summer 2020 found that practitioners felt remote consultations may lack warmth and were concerned to retain empathy, although patients did not perceive reduced rapport[26]. At 37.05 (CI 35.42, 38.67), average CARE scores for telephone consultations in our study were lower than previously reported averages and norms. This may be partly due to the pandemic context but may also indicate small differences in clinical empathy in telephone compared to face-to-face consultations. Our qualitative analysis, along with previous studies of telephone consultations, suggests ways in which telephone consultations may not only hinder but may also facilitate clinical empathy.

Telephone consultations taken in one’s home helped some (but not all) interviewees feel more comfortable, unhurried, and better able to discuss their concerns in detail. Not feeling hurried has been identified as important to primary care patients[27] and while telephone consultations may be shorter than face-to-face consultations[16,17,28] the absolute duration of consultations was not a theme in our data. Consulting by telephone rarely prevented interviewees feeling connected and building rapport with practitioners, although some interactions were described as more business-like, and some practitioners appeared more distant. Some earlier studies similarly found telephone consultations include less rapport-building[16] and may be less patient-centred[29] which may contribute to decreased perceptions of clinical empathy. In a more recent study of safeguarding during remote consultations GPs reported difficulties building rapport but also suggested telephone consultations can create safer spaces for some vulnerable patients, compared to face-to-face consultations[30].

Interviewees generally felt acknowledged, understood, and cared for and this was inferred in telephone consultations from practitioners’ behaviours including: detailed and responsive questioning; attentive listening apparently without the distraction of computers, without interrupting, and with explicit verbal acknowledgement of patients’ concerns; and clear communication about and/or implementation of next steps. In Scotland, primary care providers and patients noted telephone consultations needed “heightened verbal skills”[31] and telephone consultations were found to contain less data gathering (i.e., questioning)[16] and fewer patient education and counselling utterances but more rapport-building[28] than face-to-face consultations.

## 4.2 Strengths and Limitations

Combining quantitative and qualitative methods permitted a multi-dimensional understanding of empathy in telephone consultations. However, nesting this study within the broader feasibility study may have introduced sampling bias; our survey respondents (and therefore interviewees) lacked sociodemographic and ethnic diversity.

The observational design limits the interpretation of the quantitative component. Because participants were not randomised to receive consultations by telephone, face-to-face, or mixed modalities, differences in perceptions of empathy across these groups may be due to confounders rather than the different consultation modalities per se. For example, there may be individual differences in empathic communication between practitioners consulted in each modality that would have occurred even if all practitioners had been consulted through the same modality. Numbers experiencing different consultation modalities were uneven and the study was not powered to detect between-group differences.

## 4.3 Conclusions

Primary care patients typically perceive good levels of clinical empathy in telephone consultations and value taking telephone consultations in an unhurried and comfortable home setting. However, a lack of visual cues, interruptions, and a business-like, distant telephone manner may reduce perceptions of clinical empathy in telephone compared to face-to-face and multiple modality consultations. Others have highlighted the need for practitioner training in telephone consultations[32,33] we suggest such training should cover clinical empathy. Similarly, practitioners may benefit from training in clinical empathy that explicitly considers telephone consultations and that highlights verbal communication practices that patients perceive as empathic.

## 4.4 Practice Implications

Practitioners could increase their empathic verbalisations in telephone consultations, to ensure patients feel listened to, acknowledged and understood in the wider context of their lives. By using verbal responses and questioning to demonstrate active listening and by clearly describing and/or implementing next steps in management, practitioners may be able to enhance clinical empathy in telephone consultations. And enhancing clinical empathy should, in turn, improve patient outcomes.

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I confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story.

## Table 1. Practitioner Behaviours Involved in Clinical Empathy

|  |  |
| --- | --- |
| Source | Empathy Behaviour |
| Clinical empathy training programmes included in a systematic review of 7 trials[9] | * Explaining the patient’s condition and/or treatment * Explicitly acknowledging and/or validating patients’ experiences * Reassuring patients * Eliciting questions from patients * Discussing lifestyle issues * Checking patients’ understanding * Proposing a patient-practitioner partnership * Emphasising patients’ comfort and wellbeing * Using posture or gesture to convey attention and/or warmth (e.g., nodding, leaning forward, open posture) * Back-channelling (using vocal utterances such as ‘um’ ‘ah’ to signal active listening) * Having a warm friendly manner (e.g., tone of voice, smiling) |
| Leading patient-reported measures of clinical empathy[10 11] | * Showing interest in the patient as a person * Listening attentively * Showing care, compassion and concern * Understanding the patient’s perspective, emotions, feelings, and/or concerns |

## Table 2: Participant characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Survey respondents**  **(n=359)** | | **Interviewees**  **(n=30)** | |
|  | **n** | **%** | **n** | **%** |
| **Gender** |  |  |  |  |
| Male | 71 | 20% | 7 | 23% |
| Female | 288 | 80% | 23 | 77% |
|  |  |  |  |  |
| **Age** |  |  |  |  |
| 18-29 | 20 | 6% | 2 | 7% |
| 30-39 | 45 | 13% | 5 | 17% |
| 40-49 | 30 | 8% | - |  |
| 50-59 | 39 | 11% | 2 | 7% |
| 60-69 | 102 | 28% | 8 | 27% |
| 70-79 | 108 | 30% | 11 | 37% |
| 80+ | 11 | 3% | 2 | 7% |
| Missing | 4 | 1% | - |  |
|  |  |  |  |  |
| **Ethnicity** |  |  |  |  |
| White | 287 | 80% | 26 | 87% |
| Mixed/ Multiple ethnic groups | 1 | 0% | - |  |
| Asian/ Asian British | 2 | 1% | 1 | 3% |
| Black/ African/ Caribbean/ Black British | 1 | 0% | - |  |
| Other | 2 | 1% | 1 | 3% |
| Missing | 66 | 18% | 2 | 7% |
|  |  |  |  |  |
| **Employment** |  |  |  |  |
| Employed full time | 58 | 16% | 4 | 13% |
| Employed part-time | 42 | 12% | 5 | 17% |
| Retired | 143 | 40% | 15 | 50% |
| Unable to work | 11 | 3% | 2 | 7% |
| Unemployed | 3 | 1% | 1 | 3% |
| Doing unpaid work (E.g volunteering) | 8 | 2% | - |  |
| Other | 36 | 10% | 1 | 3% |
| Missing | 58 | 16% | 2 | 7% |
|  |  |  |  |  |
| **Education** |  |  |  |  |
| No formal educational qualifications | 15 | 4% | 1 | 3% |
| GCSEs/O levels/similar | 54 | 15% | 3 | 10% |
| A levels or similar or ONC/OND | 48 | 13% | 6 | 20% |
| HNC/HND degree | 18 | 5% | 3 | 10% |
| Degree | 79 | 22% | 13 | 43% |
| Postgraduate degree | 66 | 18% | - |  |
| Other | 21 | 6% | 2 | 7% |
| Missing | 58 | 16% | 2 | 7% |
|  |  |  |  |  |

## Table 3: Consultation characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Survey respondents**  **(n=359)** | | **Interviewees**  **(n=30)** | |
|  | **n** | **%** | **n** | **%** |
| **Consultation modality** |  |  |  |  |
| By telephone only | 229 | 64% | 18 | 60% |
| Multiple modalities | 59 | 16% | 8 | 27% |
| Face-to-face only | 56 | 16% | 4 | 13% |
| Other single modalities | 15 | 4% |  |  |
|  |  |  |  |  |
| **Consultation with** |  |  |  |  |
| GP | 290 | 81% | 23 | 77% |
| Nurse | 53 | 15% | 5 | 17% |
| Physiotherapist | 2 | 1% | 1 | 3% |
| Other/more than one practitioner | 14 | 4% | 1 | 3% |
|  |  |  |  |  |
| **Consultation about something causing pain** |  |  |  |  |
| Yes | 185 | 52% | 17 | 57% |
| No | 174 | 48% | 11 | 37% |
| Missing | - | - | 2 | 7% |
|  |  |  |  |  |
| **Consultation about osteoarthritis** |  |  |  |  |
| Yes | 40 | 11% | 4 | 13% |
| No | 318 | 89% | 24 | 80% |
| Missing | 1 | 0% | 2 | 7% |

## Figure 1: Mean ratings of individual CARE items by consultation modality

