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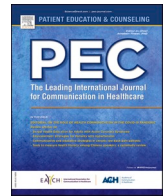
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Face-to-face and telephone appointments in the seizure clinic: A comparative analysis based on recorded interactions

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ABSTRACT

Objective: Telephone appointments are now widely used in seizure treatment, but there is little understanding of how they compare to face-to-face appointments. Studies from other fields suggest that comparisons can be done on three levels: 1) Abstract level: duration of appointment.

2) Structural level: distribution of talk. 3) Detailed level: aspects of communication. This study aims to compare seizure clinic face-to-face and telephone appointments based on their duration, distribution of talk, and the number of questions asked by patients/companions.

Methods: Statistical comparison between recordings and transcripts of 34 telephone appointments (recorded in 2021) and 56 face-to-face appointments (recorded in 2013).

Results: There was no significant difference between the duration of face-to-face (median: 16.5 min) and telephone appointments (median: 16.2 min). There was no significant difference in the ratio of neurologist to patient/companion talk (face-to-face: 55% vs. 45%, telephone: 54% vs. 46%). Patients/companions asked significantly more questions per minute in face-to-face (median: 0.17) than telephone appointments (median: 0.06, $p < 0.05$).

Conclusion: At a broad level, seizure clinic face-to-face and telephone appointments are similar. Examining the details of the interaction, however, reveals important differences in questioning.

Practice implications: Practitioners could take steps to facilitate patient questioning in telephone appointments.

1. Introduction

The Covid-19 pandemic has led to a widespread shift in epilepsy care, with most appointments that would previously have been conducted face-to-face being carried out via telephone. Commentators have been largely positive about this move to 'teleneurology', highlighting the convenience and reduction in travel time [1,2]. Survey and interview studies suggest that patients and practitioners endorse these positive aspects while also expressing concerns about the impact that telephone appointments might have on, for example, the doctor-patient relationship [3–6]. Studies suggest comparable outcomes between face-to-face and telephone appointments for epilepsy [7].

Despite all of this, we have little empirical understanding of how telephone appointments unfold compared with their face-to-face counterparts. Studies from other areas of medicine do provide some idea of how such a comparison might be conducted. These are studies that take

recordings of real remote appointments (either video or telephone) and face-to-face appointments and look at them side-by-side. Such studies suggest that comparisons can be made on three levels. At the abstract level, face-to-face and remote appointments can be compared based on how long they last or how much ground they cover. Crude measures of appointments at this level include the duration of the recording (e.g. Demiris et al. [8]) or how many words were spoken in the appointment (e.g. Liu et al. [9]). Focusing on telephone appointments in particular, studies in primary care have found that telephone appointments are significantly shorter than their face-to-face counterparts [10,11]. (See Ford and Reuber [12] for a review of both telephone and video-based research.).

At a more structural level, studies have compared not just how long appointments last for but how that time is distributed between practitioner and patient. Tachakra and Rajani [13], for example, broke down three-party video appointments between doctors, nurses, and patients in

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a minor accident and treatment service, presenting the proportion of words said by each party. A different approach to studying the distribution of talk, taken by Agha et al. [14] in video appointments, is to calculate a 'verbal dominance ratio' by dividing the number of words spoken by the practitioner by the number of words spoken by the patient/companion. A study comparing verbal dominance between face-to-face and telephone appointments in primary care found no significant difference [10].

At the third and most detailed level, studies have compared specific aspects of doctor-patient interaction. These include the number of empathic statements made in face-to-face versus remote appointments (e.g. Liu et al. [9]), the amount of informal talk (e.g. Edison et al. [15]), and the number of questions asked (e.g. McKinstry et al. [11]). Although the findings here are too disparate to summarise, such analyses can reveal how granular details of appointments can differ or remain unchanged between appointment modalities.

In epilepsy, a number of earlier studies have looked empirically at communication in face-to-face appointments alone. A 2009 study, for example, found that linguistic features of patients' descriptions of their seizures could be used to distinguish between epileptic and non-epileptic seizures [16], while other studies have focused on the different ways in which neurologists could initiate treatment decisions [17–20]. Although telephone appointments have become commonplace in this subspecialty of neurology, there has not to our knowledge been any quantitative *comparative* empirical research on face-to-face and telephone appointments for epilepsy (for a qualitative study, see Ford and Reuber [21].) Using recordings of telephone and face-to-face appointments, we aim to address this gap by taking the three-level approach outlined above. First, we will compare how long these appointments last for, measured by both duration and word count. We will then move on to examine how the time within appointments is distributed between neurologists and patients. Finally, we will compare a specific aspect of doctor-patient interaction: the number of questions asked by patients and companions.

2. Methods

The telephone data for this study were collected between June and November 2021 in the seizure clinic at the Royal Hallamshire Hospital in Sheffield, United Kingdom. Eligible patients who were due to have an appointment were sent a letter telling them about the research. To be eligible, a patient had to be an English speaker (a telephone translation service would alter the dynamic) and an adult. Note that there were systems in place that would allow neurologists to carry out video appointments if necessary (e.g. if the patient was new), and we had also designed the study to capture such appointments. In practice, however, all the appointments we recorded (both new and follow-up) ended up being carried out via telephone.

The consenting process was done in two stages. At the beginning of the appointment, the neurologist asked eligible participants (i.e. patients and companions) if they were happy for the interaction to be recorded. Participants could later confirm if they wanted to be part of the study, either by returning a paper consent form via post or by filling out an electronic form online. Participating neurologists could also provide consent using one of these two methods. Appointments were video recorded on the neurologist's side of the call (there was no video for the patient's side). Ethical permission for the collection of these data was obtained from the Yorkshire & The Humber – Bradford Leeds Research Ethics Committee (21/YH/0086).

The face-to-face data for this study were extracted from a data collection completed in 2012 as part of an earlier project [19,20]. These recordings were made in neurology outpatient clinics at the Southern General Hospital in Glasgow, United Kingdom, and the Royal Hallamshire Hospital in Sheffield, United Kingdom. Of a total of 225 recordings, 56 relating to seizures were identified and included in the present study. Recordings were a mixture of video and audio-only.

The recorded appointments in both modalities were heterogenous, with varying goals and patients at varying stages; some had only recently started having seizures, while others had been having seizures for years. Similarly, there were varying degrees of patient-neurologist familiarity, with some meeting for the first time and others having known each other for a long time.

Analyses were carried out based on recordings of appointments and verbatim transcripts. In calculating duration, we obtained the length of recordings from the metadata of the video files. For the parts of the analysis requiring word count calculations, Microsoft Word's find and replace tool was used to create separate versions of each transcript featuring just the words of the neurologist, patient, and, where present, companion(s). Note that there was one case where someone else spoke on the patient's behalf throughout the appointment. Because this was, effectively, a two-party interaction (indeed, it was not even clear if the patient was present for the call), this person was treated as the 'patient' rather than companion for the purposes of our analysis.

For the analysis of patient/companion questioning, we treated a question as an utterance that sought information, advice, or clarification. This included both clear questions that were formatted as such, as well as questions that were phrased indirectly or elliptically. Conversely, it excluded utterances that, while formatted as questions, were not performing the conversational actions outlined above (e.g. requests).

Data was compiled in a spreadsheet for analysis. Statistical analyses were carried out using JASP. Student's t-tests (two-sided) and Mann-Whitney U tests were used as appropriate for parametric and non-parametric data. Chi-square and two-way ANOVA were used to analyse companion involvement and impact. A two-sided p-value of < 0.05 was considered statistically significant.

3. Results

3.1. Overview

Of the 56 seizure-related recordings selected from the face-to-face dataset, 34 featured one companion and an additional 3 featured two or more companions (i.e. a total of 66.1% of patients were accompanied). These recordings were with 8 neurologists (5 in Glasgow, 3 in Sheffield).

Our dataset of telephone appointments comprised interactions between 39 patients (49% of those originally recorded) and 6 neurologists. 5 of these recordings had to be excluded from the present analysis due to poor audio quality. Of the remaining 34 appointments, 9 (26.47%) featured a third party. A chi-square revealed that face-to-face appointments were significantly more likely to feature a companion, $\chi^2(1, n = 90) = 12.10, p < 0.001$.

In the introduction, we saw how face-to-face and remote appointments could be compared on three levels: the abstract level (comparing duration), the structural level (comparing talk distribution), and the detailed level (comparing specific communication behaviours). We will now present similar comparisons for our datasets.

3.2. Abstract level

Duration was measured using recording length and number of words. The median length of face-to-face conversations was 16.5 min (range=5.9 – 48.9) and that of telephone appointments 16.2 min (range=4 – 45.9). The median number of words was 2896 words (range=1036 – 8628) in face-to-face appointments and 3015 words (range = 716 – 6673) in telephone appointments. Neither measure of duration revealed a significant difference between the two appointment modalities (recording length: $U=1013, p = .615$ / word count: $U=1040.5, p = .464$).

Because the presence of a companion (and the significant difference in the proportion of companions between the face-to-face and telephone appointments) could also have influenced the duration of appointments,

we conducted a two-way ANOVA to analyse the effect of companion presence (present or not present) and modality (face-to-face and telephone) on duration. This revealed that there was no significant interaction between companion presence and modality based on either recording length ($F(1, 86) = .483$, $p = .489$) or number of words ($F(1, 86) = .392$, $p = .533$).

3.3. Structural level

Talk distribution was measured using number of words. To do so, we grouped patient and companion talk together into a single 'patient party'. In face-to-face appointments, neurologists accounted for an average of 55.1% ($sd=12.2$) of the words spoken and the patient party for 44.6% ($sd=12.4$). In telephone appointments, neurologists accounted for 54.3% ($sd=14.2$) and patients for 45.6% ($sd=14.2$). A t-test revealed no significant difference for the proportion of either neurologist ($t(88) = .255$, $p = .800$) or patient party talk ($t(88) = -.353$, $p = .725$).

We conducted a two-way ANOVA to explore whether the presence of a companion could affect the distribution of talk between the modalities. This revealed no significant interaction between companion presence and modality for either the proportion of neurologist talk ($F(1, 86) = .368$, $p = .546$) or patient-only talk ($F(1, 86) = .449$, $p = .504$).

We also calculated the 'verbal dominance ratio' (the number of words spoken by the neurologist divided by the number of words spoken by the patient unit [14]) for appointments in both modalities. There was no significant difference in the median verbal dominance ratio between face-to-face ($mdn=1.32$, $range=0.3 - 4.1$) and telephone ($mdn=1.25$, $range=0.4 - 3.6$) appointments ($U=956.5$, $p = 0.973$).

3.4. Detailed level

At the third, most fined-grained level of comparisons, we focused on a particular communication behaviour: the number of questions asked by patients and companions. The patient party asked significantly more questions per minute in face-to-face ($mdn=0.17$, $range = 0 - 1.13$) than telephone ($mdn=0.06$, $range = 0-0.4$) appointments ($U=1321.5$, $p = .003$). The median number of questions per consultation was 3 for face-to-face appointments ($range=0-31$) and 1 for telephone appointments ($range=0-10$) ($U=1264.5$, $p = .009$). A two-way ANOVA revealed no

significant interaction between companion presence and modality for or questions per minute ($F(1, 86) = .201$, $p = .655$). A significant difference remained even when we focused specifically on patients' questions per minute and excluded those of companions ($U=1240.5$, $p = 0.006$) (see Fig. 1).

4. Discussion and conclusion

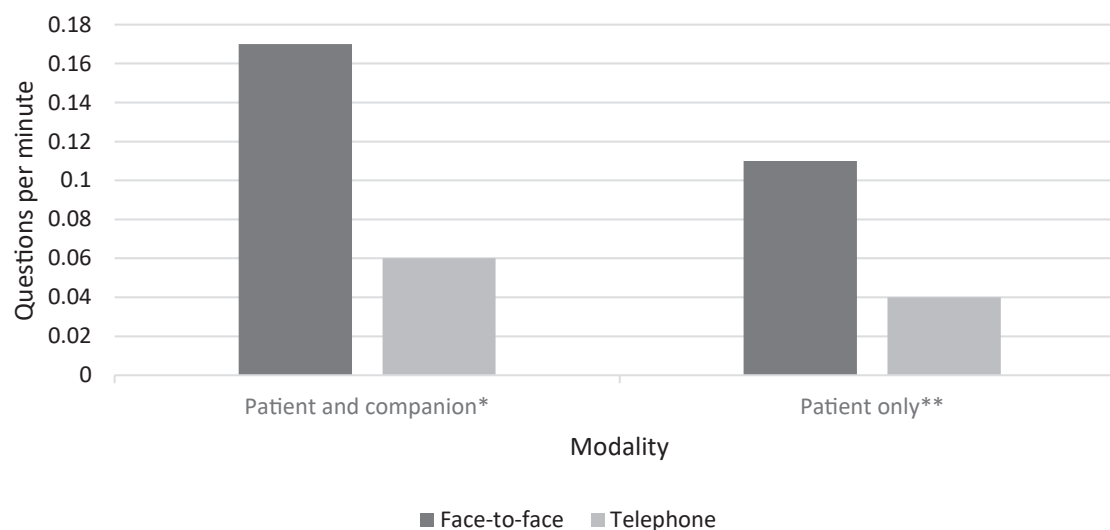
4.1. Discussion

The aim of this paper was to compare face-to-face and telephone appointments for epilepsy on three levels of increasing detail. We started with a broad comparison of the overall 'shape' of the appointment, as measured by the duration. We then compared how this duration was distributed between the doctor and the patient/companion. Finally, we compared the number of questions asked by patients and companions within appointments.

Our findings varied between these levels. At the most macroscopic level, we found no significant difference in duration between face-to-face and telephone appointments, with both modalities being around 16 min. This is typical in the context studied, although consultations can run longer if, for example, there is a clinical need for it or if there is extra time available due to patients not showing up. While patients were more likely to be accompanied in face-to-face encounters, this finding was true regardless of companion presence. This finding is out of step with comparative studies in other areas of medicine, which have generally shown remote appointments to be significantly shorter than face-to-face appointments [12]. Looked at in context, however, this finding is less surprising. Regardless of communication modality, epilepsy appointments are, due to the nature of the condition, overwhelmingly conducted via talk. This means that many of the elements that are likely to extend a face-to-face appointment (e.g. physical examination) are not present and that the core tasks remain unchanged by a shift to telephone appointments.

The second level of our comparison, the distribution of talk between neurologist and the patient part, also failed to reveal significant differences between appointment modalities. This finding is more in line with studies in other areas, which have shown little evidence that telephone appointments are significantly more doctor-dominated [12]. Again, this might reflect how the overwhelmingly verbal nature of epilepsy

Questions asked in face-to-face and telephone appointments



* $p = 0.003$

** $p = 0.006$

Fig. 1. Questions asked in face-to-face and telephone appointments. * $p = 0.003$ * $p = 0.006$.

appointments can be kept intact if interactions are carried out over the phone. Table 1.

However, it was notable that the verbal dominance ratio was over 1 for both modalities, indicating that, regardless of how they are conducted, the distribution of talk tends to be skewed towards the neurologist rather than the patient. Health researchers have long expressed concerns about clinician domination of interactions [22], particularly in areas where patient input is ostensibly valued (e.g. discussions about medication [23]). Our findings suggest that the use of the telephone neither exacerbates nor addresses this issue. It is also important to note that there is no single correct patient/clinician talk ratio, with talk distribution varying between clinical settings (see [10,14] for examples).

Our third comparison, at a more detailed level of the interactions, revealed that the patient party asked more than twice as many questions per minute in face-to-face than in telephone appointments. The statistical significance of this finding persisted even if companions' questions were excluded and could not be explained by any disparity in duration or talk distribution. One possible explanation is that telephone appointments make it harder for patients to ask questions due, for example, to a lack of body language. This is supported by our forthcoming interview study featuring some of the patients whose appointments we recorded [6]. Participants in this study talked about how the lack of visual information made it more difficult for them to gauge how long the appointment was supposed to last for or when the neurologist wanted to wrap things up. This could, in turn, explain why patients would be more reluctant to ask questions in this modality. Other participants explicitly acknowledged that they asked fewer questions in telephone appointments, although one of these patients, when asked to expand upon this point, could not put his finger on why. This suggests that the reason for the disparity might not be amenable to analysis based on recorded appointments alone.

Whatever the reason, the difference that we have revealed is an intriguing one, indicating that, in telephone appointments, patients might be less engaged or less able to clarify issues which may well be clinically relevant. Research has also revealed a problem with 'unmet concerns' in medical appointments, i.e. concerns that patients bring to the appointment but do not raise with the practitioner [24]. Our findings suggest that the use of the telephone might exacerbate this existing problem.

Our study has a number of limitations. One methodological issue is

that we have compared newly collected telephone appointment data with face-to-face appointment data collected in 2012. This disparity could have introduced confounding variables in both communication modalities. The telephone appointment data, for example, was collected during the Covid-19 pandemic, when external factors determined that all routine seizure clinic interactions had to be conducted remotely. While this means that the telephone appointments contributing to our study were unselected (i.e. included all types of appointment, not only telephone encounters with patients who had specifically chosen this modality of interaction), it is possible that the (real or perceived) pressures associated with the pandemic had an effect on the communication behaviour of doctors and patients.

There have also been developments in the face-to-face modality in the intervening years that could have an impact on doctor-patient communication. These include setting-specific developments in epilepsy care, as well as, for example, increased use of Electronic Health Records [25] or (in the UK) increased pressures the National Health Service. We cannot be certain, therefore, that our findings would have been the same had we compared newly collected telephone data with newly collected face-to-face data.

Another potential limitation was that comparisons were based on transcripts. Although we had the resources to produce highly detailed transcripts for the telephone appointments, with the face-to-face appointments, we were relying on existing transcripts that were not necessarily done to the same level of detail. However, we do not believe that this had a substantial impact on our findings, for two reasons. First, the comparison of duration using word counts was supported by a comparison using video/audio file duration, which produced similar average durations (16.5 min/16.2 min vs. 3015 words/2896 words). Second, our comparison of the number of patient/companion questions revealed that there were more of them in face-to-face appointments. If we did miss questions due to less detailed face-to-face transcripts, then, it would mean only that we had underestimated the extent of the disparity rather than showing a disparity that did not exist.

Similar concerns could be raised about the use of raw durations taken from the audio/video files. For example, in the telephone recordings, talk about the consenting process (e.g. obtaining contact details to give to the research team) would often be captured within the recordings, whereas in the face-to-face recordings, the consenting process had taken place prior to the appointment. We would note, however, that the face-to-face recordings could also feature extraneous material (e.g. time spent setting up of cameras at the beginning) not present in the telephone recordings. We believe, then, that on average any modality-specific material was likely balanced out by similar material in the other modality.

Our decision to use heterogeneous samples in both communication modalities could be seen as both a strength and a weakness. On the one hand, it means that our comparisons reflect a range of appointments that might occur during a typical seizure clinic. However, we cannot be certain that our findings would be the same if we were to focus only on a particular subset of appointments (e.g. routine follow-ups) or patient types (e.g. patients who had only started having seizures in the last six months). This is particularly true of our findings on talk distribution, which is likely to vary depending on the focus of the appointment. Similarly, our findings might have been skewed by variability in patient age or gender, which we did not collect for the telephone appointments.

We also did not collect record whether appointments were new or follow-up (although this would be difficult to do anyway, given that, for example, some patients were being seen for follow-up by a clinician they had never talked to before). There is, furthermore, the possibility of selection bias, given that we did not record the total number of information sheets sent out or the number of patients who declined to participate on the day.

Although only one neurologist appeared in both datasets (accounting for 11% of the telephone dataset and 12% of the face-to-face dataset), 35.6% of the face-to-face appointments were recorded in the same

Table 1
Summary of findings.

Comparison	Average (face-to-face)	Average (telephone)	Value	Significance
Duration (recording length)	16.54 min ^a	16.2 min ^a	u = 1013	Not significant
Duration (total words)	2629 ^a	3015 ^a	u = 1040.5	Not significant
Proportion of neurologist words	55.1% ^b	44.6% ^b	t = .255	Not significant
Proportion of patient party words	54.3% ^b	45.6% ^b	t = .353	Not significant
Verbal dominance ratio	1.32 ^a	1.25 ^a	u = 956.5	Not significant
Questions per minute (patient and companion)	0.17 ^a	0.06 ^a	u = 1321.5	p = 0.003
Questions per minute (patient only)	0.11 ^a	0.04 ^a	u = 1240.5	p = 0.006

^a Median

^b Mean

hospital (the Royal Hallamshire Hospital in Sheffield) as the telephone appointments. The other hospital (the Southern General Hospital in Glasgow) was also a city-based UK hospital, dealing with a similar patient population to the Royal Hallamshire. (See Reuber et al. [26] for demographic and clinical comparisons of the two study sites.) Finally, our remote appointment dataset comprised only telephone, rather than video, appointments. This is justifiable inasmuch as telephone appointments, in their lack of visual information, are a more ‘extreme’ version of remote appointment, meaning that they are more representative of the full range of issues that can arise when meeting remotely. What is more, none of the clinicians involved in the study had adopted video appointments as a remote appointment routine, although they all had access to an internet-based video appointment platform (and could, indeed, have recruited patients engaging in a video appointment for this study). Nonetheless, we cannot say if our findings would also apply to video appointments.

4.2. Conclusion

Taken together, our findings suggest that face-to-face and telephone appointments for epilepsy are similar in their broad strokes; they last for about the same amount of time and that, during that time, neurologists talk more than patients/companions irrespective of communication modality. These broad similarities do not, however, preclude there being differences in specific communication behaviours such as questioning. Aside from being important in itself, this finding has methodological implications, because any comparison focusing only on the broader aspects would miss these differences and could conclude that face-to-face and telephone appointments are basically the same. It is therefore important that future research should take into account these specific communication behaviours.

4.3. Practice implications

Our findings suggest that patients ask fewer questions in telephone appointments. Practitioners could take steps to address this by providing patients with more opportunities to ask questions and by ensuring that all of the patient’s concerns have been met. More generally, healthcare systems, patient advocacy groups, and other stakeholders should be aware of (and, where necessary, ameliorate) the impact that the shift to remote appointments might have on what occurs in the consultation room.

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CRediT authorship contribution statement

Ford Joseph: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Funding acquisition. **Reuber Markus:** Writing – review & editing, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Conceptualization.

Declaration of Competing Interest

None.

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References

- [1] Dorsey ER, Glidden AM, Holloway MR, Birbeck GL, Schwamm LH. Telemedicine and mobile technologies: the future of neurological care. *Nat Rev Neurol* 2018;14: 285–97.
- [2] Guzik AK, Switzer JA. Telemedicine is neurology. *Neurology* 2020;2020(94): 16–7.
- [3] Banks J, Corrigan D, Grogan R, El-Naggar H, White M, Doran E, et al. LoVE in a time of COVID: clinician and patient experience using telemedicine for chronic epilepsy management. *Epilep Behav* 2021;115:107675.
- [4] Conde-Blanco E, Centeno M, Tio E, Muriana D, García-Peñas JJ, Serrano P, et al. Emergency implementation of telemedicine for epilepsy in Spain: results of a survey during SARS-CoV-2 pandemic. *Epilep Behav* 2020;111:107221.
- [5] Courtney E, Blackburn D, Reuber M. Neurologists’ perceptions of utilising telemedicine to practice remotely during the COVID-19 pandemic. *Patient Educ Couns* 2021;104:452–9.
- [6] Ford J., Reuber M. (in preparation). Exploring patients’ views on telephone consultations in the seizure clinic: A qualitative interview study.
- [7] Bahrani K, Singh MB, Bhatia R, Prasad K, Vibha D, Shukla G, et al. Telephonic review for outpatients with epilepsy—a prospective randomized, parallel group study. *Seizure* 2017;53:55–61.
- [8] Demiris G, Edison K, Vijaykumar S. A comparison of communication models of traditional and video-mediated health care delivery. *Int J Med Inf* 2005;74:851–6.
- [9] Liu X, Sawada Y, Takizawa T, Sato H, Sato M, Sakamoto H, et al. Doctor-patient communication: a comparison between telemedicine consultation and face-to-face consultation. *Intern Med* 2007;46:227–32.
- [10] McKinstry B, Hammersley V, Burton C, Pinnock H, Elton R, Dowell J, et al. The quality, safety and content of telephone and face-to-face consultations: a comparative study. *BMJ Qual Saf Health Care* 2010;19:298–303.
- [11] Hammersley V, Donaghy E, Parker R, McNeilly H, Atherton H, Bickler A, et al. Comparing the content and quality of video, telephone, and face-to-face consultations: a non-randomised, quasi-experimental exploratory study in UK primary care. *Br J Gen Pr* 2019;69:e595–604.
- [12] Ford J, Reuber M. Comparisons of communication in medical face-to-face and teleconsultations: a systematic review and narrative synthesis. *Health Commun* 2023.
- [13] Tachakra S, Rajani R. Social presence in telemedicine. *J Telemed Telecare* 2002;8: 226–30.
- [14] Agha Z, Roter DL, Schapira RM. An evaluation of patient-physician communication style during telemedicine consultations. *JMIR* 2009;11:e36.
- [15] Edison KE, Fleming DA, Nieman EL, Stine K, Chance L, Demiris G. Content and style comparison of physician communication in telemedicine and in-person visits. *Telemed J E Health* 2013;19:509–14.
- [16] Reuber M, Monzoni C, Sharrack B, Plug L. Using interactional and linguistic analysis to distinguish between epileptic and psychogenic nonepileptic seizures: a prospective, blinded multirater study. *Epilep Behav* 2009;16:139–44.
- [17] McCorry D, Marson T, Jacoby A. Understanding routine antiepileptic drug decisions: a qualitative analysis of patients’ accounts of hospital consultations. *Epilep Behav* 2009;14:210–4.
- [18] Monzoni C, Reuber M. Conversational displays of coping resources in clinical encounters between patients with epilepsy and neurologists: a pilot study. *Epilep Behav* 2009;16:652–9.
- [19] Toerien M, Shaw R, Reuber M. Initiating decision-making in neurology consultations: ‘Recommending’ versus ‘option-listing’ and the implications for medical authority. *Sociol Health Illn* 2013;35:873–90.
- [20] Wiseman H, Chappell P, Toerien M, Shaw R, Duncan R, Reuber M. Do patients want choice? An observational study of neurology consultations. *Patient Educ Couns* 2016;99:1170–8.
- [21] Ford J, Reuber M. Comparing companion involvement in clinical telephone and face-to-face consultations about seizures. *Health Commun* 2023.
- [22] Mishler EG. *The Discourse of Medicine: Dialectics of Medical interviews*. New Jersey: Ablex Publishing Corporation; 1984.
- [23] Stevenson FA, Cox K, Britten N, Dundar Y. A systematic review of the research on communication between patients and health professionals about medicines: the consequences for concordance. *Health Expect* 2004;7:235–45.
- [24] Heritage J, Robinson JD, Elliott MN, Beckett M, Wilkes M. Reducing patients’ unmet concerns in primary care: the difference one word can make. *J Gen Intern Med* 2007;22:1429–33.
- [25] Alkureishi MA, Lee WW, Lyons M, Press VG, Imam S, Nkansah-Amankra A, et al. Impact of electronic medical use on the patient-doctor relationship and communication: a systematic review. *J Gen Intern Med* 2016;31:548–60.
- [26] Reuber M, Chappel P, Jackson C, Toerien M. Evaluating nuanced practices for initiating decision-making in neurology clinics: a mixed-methods study. *Health Serv Deliv Res* 2018;6.