

QUALITATIVE HEALTH COMMUNICATION

VOLUME 3, ISSUE 1, 2024

ISSN: 2597-1417

Gastrointestinal specialist perspectives on telehealth consultations

Amy D. Nguyen^{1,2}

Sarah J. White^{3,4}

Sadhvi S.S. Naresh⁴

John A. Cartmill⁴

NAME OF DEPARTMENTS AND INSTITUTIONS:

¹ Centre for Health Systems and Safety Research, Australian Institute of Health Innovation, Macquarie University, Australia

² St Vincent's Clinical School, UNSW Sydney, Sydney, Australia

³ Centre for Social Impact, UNSW, Kensington, Australia

⁴ Macquarie Medical School, Macquarie University, Sydney, Australia

CORRESPONDING AUTHOR:

Amy D. Nguyen. E-mail: amy.nguyen@mq.edu.au

ABSTRACT

Background: Telehealth, care delivered via phone or video call, affects the delivery of healthcare, and this is reflected in provider and patient satisfaction. **Aim:** The aim of this study was to ascertain medical specialists' experiences using telehealth in a single specialty group, gastroenterology. **Methods:** Gastrointestinal specialists known to the research team were invited to six semi-structured, one-on-one interviews conducted (by telephone) during the height of COVID-19 imposed telehealth practice. Specialists were asked about their experiences using telehealth. Interviews were transcribed verbatim and thematically analysed independently by two reviewers to identify major themes. **Results:** The absence of visual cues (when over the telephone) and limited physical examination in telehealth in general were perceived as major barriers for specialist telehealth consultations. Convenient for straightforward situations where relationships were already established, the complexity inherent in a specialist review challenged the telehealth medium. **Discussion:** Specialists acknowledged the pragmatism of telehealth in some situations, but emphasised logistical, technical, and communication barriers to using telehealth. **Conclusions:** Awareness of these limitations will direct training for clinicians and allied staff to better triage situations suited to a medium where neither participant are co-located.

KEYWORDS

Remote communication, specialist care, telehealth, telemedicine, qualitative interviews

BIOGRAPHIES

Amy D. Nguyen, PhD, is a digital health researcher whose research focuses on the implementation of various health technologies in the aged care, general practice and chronic disease sectors. Dr Nguyen leads work focusing on the co-design, usability, feasibility and quality of health technologies in the delivery of safe healthcare, using a myriad of qualitative and quantitative methods.

E-mail: amy.nguyen@mq.edu.au. ORCID: 0000-0003-4603-564X.

Twitter: @DrAmyDNgyuen

Sarah J. White, PhD, is a conversation analyst and health researcher. She is a Senior Lecturer in the Centre for Social Impact at UNSW and an Honorary Senior Research Fellow at the Macquarie Medical School. Sarah has published on communication in healthcare in a range of journals and edited books as well as writing for more general clinical audiences. Sarah is the current Australian

Deputy National Representative of the International Association for Communication in Healthcare.

E-mail: sarah.white@unsw.edu.au. ORCID: 0000-0001-7458-705X.

Twitter: @DrSarahJWhite

Sadhvi Naresh, B.ClinSci, is a Doctor of Medicine student at Macquarie University. Her research interests include qualitative and quantitative research in healthcare communication, patient needs and preferences, and strategies to evaluate, improve, and implement evidence-based practices in healthcare. She is also interested in technologies and strategies to improve quality and efficiency in healthcare delivery and patient experiences.

E-mail: sadhvi.naresh@students.mq.edu.au.

John A. Cartmill is Professor of Surgery and a colorectal surgeon and educator whose clinical practice has been profoundly influenced through interface with engineering, psychology, linguistics and conversation analysis. All various dimensions of meaning making.

E-mail: john.cartmill@mqhealth.org.au. ORCID: 0000-0001-8096-4624.

Introduction

Telehealth refers to the delivery of healthcare services using technology as an alternative to in-person consultations, and includes videoconferencing, internet, and telephone reviews AHPRA (2022). Telehealth¹ use has been well established in Australia prior to the COVID-19 pandemic to provide clinical care to patients in rural and remote areas, where there is limited access to conventional in-person consultations with clinicians. Travel and contact restrictions in Australia during the COVID-19 pandemic markedly limited the provision of conventional in-person clinical visits in both metropolitan and rural settings (Taylor et al., 2021). The creation and expansion of telehealth item numbers on the Medicare Benefits Scheme (MBS), and removal of barriers to patient reimbursement for video and telephone consultations by the Australian government, further encouraged the uptake of telehealth services (Andrikopoulos & Johnson, 2020; Snoswell et al., 2020). Consequently, a significant and rapid increase in telehealth use occurred, accounting for 28% of all federally funded consultations, compared to <1% prior to the pandemic (Bate et al., 2021; Taylor et al., 2021). Multiple studies have noted that there has in fact been greater utilisation of telephone consultations compared to videoconferencing (Imlach et al., 2020; Savira et al., 2023; Wiadji et al., 2021). In their paper that analysed patterns of telemedicine usage, stratified by the type of technology (e.g., videoconferencing versus telephone consults), Savira et al. found that telephone consultations made up more than 98% of all remote consultations (Savira et al., 2023).

This surge in telehealth use, particularly with telephone consults but also with videoconferencing, has been pivotal in providing continuity in clinical care to patients during the pandemic and has been quickly embraced by a variety of healthcare providers such as general practitioners, specialists, and allied health providers (Elawady et al., 2020; Ly et al., 2017; Malliaras et al., 2021). However, whilst there is widespread and global clinician acknowledgement that telehealth is often a suitable platform to provide clinical care (Kirby et al., 2021; Miner et al., 2020; Ruiz Morilla et al., 2017), patient and provider satisfaction in using telehealth varies (Chang et al., 2021; Chesnel et al., 2021; Mubaraki et al., 2021; Kruse et al., 2018; Sugarman et al., 2021).

¹ We acknowledge that the terms “telehealth”, “telemedicine”, and “digital health” have overlapping definitions and that they are used and understood variably. given this is a study conducted within Australia, we have chosen to follow the definition of telehealth provided by Australian agencies, which state that telehealth refers to consultations via phone or video call. While most of those interviewed used phone calls for telehealth, there is the option for video calls (as referenced within the interviews). Dividing “telehealth” into phone vs video becomes an artificial division in the Australian context when uptake of and reference to telehealth includes both as options. We have chosen to refer to other research that examines both as phone and video calls were both used and covered throughout the timeframe covered in this research.

As governments start to implement change based on both early COVID-19 experiences and ongoing management, consideration of the role of telehealth within the health system is central for effective clinical care. Any extension to telehealth subsidisation by the Australian government will perpetuate system-level limitations unless supported by an evidence-based approach (Mahtta et al., 2021; McKenzie & Kanhutu, 2021; Thomas et al., 2022).

There is a paucity of information on the efficacy of communication by specialists whilst providing telehealth care, with findings often extrapolated from general practice, rather than specific examination of the experiences of different specialties. Further research into the experiences of and the facilitators and barriers to telehealth use is essential to create a robust understanding of the varied experiences of telehealth by different clinical groups. Given the different clinical and, thus, communicative, tasks of each specialty, understanding the impact of telehealth at a specialty level is important and may be used to inform guidelines and policy.

There is limited data about specialists' awareness and confident use of telehealth, particularly in Australia, more so, amongst surgical sub-specialists (Wiadji et al., 2021). Gastroenterology frequently requires physical examination, generally manages an older patient population, and involves a range of visit types beyond initial reviews to post-operative review and other follow-ups. Therefore, the aim of this study is to ascertain medical specialists' experiences using telehealth in a single specialty group, gastroenterology.

Literature review

Over Multiple studies have identified a key advantage of telehealth in facilitating the provision of timely care whilst minimising travel and associated costs for both patients and providers (Donelan et al., 2019; Hatcher-Martin et al., 2016; Russo et al., 2016). Telehealth can be used as a triage tool to assess the needs of the patient and to evaluate whether an in-person consultation is necessary, and the appropriate timeframe for it (Bos et al., 2021; Cantone et al., 2019; Imlach et al., 2020).

A recent systematic review identified barriers to telehealth, including patients' level of education, and clinician's technical skills and hesitancy to adopt new practices (Kruse et al., 2018). A 2020 study by Hasani et al, which investigated physician perceptions of telephone consultations in primary care, also found that limited staff training and insufficient technical support impeded effective patient-physician communication (Hasani et al., 2020). Patient age has also been noted to be an important consideration, with multiple studies seeing a correlation between increased age and decreased telehealth success (Bos et al., 2021; Gentry et al., 2021; Kruse et al., 2018). In a 2020 UK survey of 114 healthcare providers and their experiences in using telephone consultations to deliver clinical care, the inability to conduct physical examinations and inability to engage with physical non-verbal cues during telehealth consultations were significant barriers that diminished effective communication (Elawady et al., 2020).

Physical examination is an evolved and refined part of the analytic process of patient diagnosis; a way of confirming (or not) an impression gained through dialogue alone; with for pain specifically, up to approximately 10-15% of definitive diagnoses requiring an in-person physical examination (Wahezi et al., 2020). An international survey of clinicians found that nearly 70% felt that physical examination was 'almost always valuable' in aiding clinical

decision-making in acute general medical referrals (Elder et al., 2017). Several additional studies have noted that physical examination increases clinicians' confidence in their diagnoses (M. C. Peterson et al., 1992; Wahezi et al., 2020). Research regarding the impact of telehealth and its associated inability to perform the real time physical dimension of examining a patient, specifically on the doctor-patient communicative interaction is limited (Wiadji et al., 2021).

The lack of physical examination during clinical consultations may also have implications for communication in consultations. In surgical consultations in the US, physical examination offers a place for patients to raise additional concerns (White, 2020) and without it this opportunity is lost, requiring patients having to find alternative communicative solutions to do so (White et al., 2022).

Further research and understanding into the experiences of telehealth use, as applicable to individual subspecialties is essential to assist in paving the way to design and implement guidelines, optimise patient and provider satisfaction, maximise telehealth diffusion and delivery to the community at large, and recognise the limitations of telehealth consultations between different clinical specialties.

Methods

Ethical approval

This research was approved by the Macquarie University Human Research Ethics Committee (6688).

Recruitment

This study was conducted between October 2020 and August 2021. Gastrointestinal physicians and surgeons known to the research team were recruited to the study by email. Care was taken to interview a range of specialists of varying demographics (age, sex) and years of clinical experience (data not shown). Specialists were not reimbursed for their time.

Participants

Thematic saturation, the point at which no new themes were raised by interview participants, was reached following six interviews. One gastrointestinal specialist was female and five were male. All specialists practiced in metropolitan Sydney and had used phone and/or video calls in their telehealth practice.

Data collection

Prior to the interview, the purpose of the study was explained in both written format and verbally to participants, and written consent obtained. Interviews were semi-structured and followed an interview guide (Appendix A) which contained questions specifically focused on the specialists' experiences conducting telehealth consultations. The one-on-one interviews were conducted over the telephone. All interviews were conducted by one researcher (ADN). Interviews were audio-recorded, transcribed verbatim professionally by Digital and Audio Transcription Services (DAATS), and de-identified to ensure confidentiality.

Analysis

A thematic approach was used for analysis (Braun & Clarke, 2006). Each transcript was analysed by at least two independent reviewers (ADN, SJW, SSSN). Reviewers read through the interview transcripts individually and identified initial codes arising from the transcripts. Reviewers then convened to discuss identified codes and categorised these codes into the prominent themes and subthemes through agreement. These themes were then developed into an analysis framework. This analysis framework was then used for reanalysis of all transcripts to ensure consistency in categorisation of created themes across all transcripts. Any discrepancies in the analysis framework upon reanalysis, including inclusion of additional themes, were resolved by consensus through discussion (ADN, SJW, SSSN).

Funding

No funding was received for this study, and the authors declare no conflicts of interest. Author JC was an interview participant, however, was not involved in any part of thematic analysis including creation of themes.

Results

Six gastrointestinal specialists, both physicians and surgeons, working in Sydney, Australia, across several hospitals, were interviewed regarding their experiences of using telehealth during 2020 and 2021. Interviews were on average 36 minutes long (range=14-48 minutes). Through the thematic analysis, four major themes were identified: suitability of telehealth consultations, communication during telehealth consultations, benefits and barriers of telehealth, and strategies to improve telehealth.

Suitability of telehealth consultations

Specialists were asked about the preparation that they undertook prior to conducting telehealth (both over the phone and videoconferencing) consultations, including training they

received and how they ascertained whether a telehealth format would be suitable for the consultation. Participants stated that they had received little to no training for conducting consultations via telehealth. However, this was not seen as a deterrent, as they stated that preparing for telehealth was not different to preparing for in-person consultations and that telehealth consultations used similar resources such as a GP referral letter.

If it was... a patient that I've never met before - I usually would have the referral letter from the doctors and would still access those letters [in a telehealth consultation]. And if there were results, I would have to rely on results that would have come through from the referring doctor. But again, that's no different to a face-to-face [in-person] consult. [201208]

Making the choice between conducting a consultation via telehealth or in-person was based on several patient factors. These patient-centred factors included whether the patient was new to the specialist, the medical condition with which the patient presented, the patient's social circumstances, as well as the patient's preference. Regarding patient preferences, specialists reported that some patients had expressed a preference to have their consultations in-person, others by telephone or videoconferencing, and that this was based usually on their geographical distance from the specialist's practice. Specialists themselves had a strong preference for consultations to be in-person when the patient was new to them, or if they needed physical treatment such as surgery following the consultation. This was due to specialists stating that lack of physical examinations of patients meant that the specialist was at risk of missing something important, was unable to build rapport before performing surgery or did not allow for adequate follow-up post-surgery, such as examination of healing and scarring.

The commonest procedure that I do is gallbladder surgery for gallstones, so if there's a patient who – I will tend to, unless they're from significantly out of town – will not operate on patients that I haven't met in person beforehand. So, a telehealth consultation is often a bridge to establish or confirm a diagnosis and establish a treatment plan. [210805]

Communication during telehealth consultations

Specialists were asked about what information was required to be gathered and accessed in order to provide care to patients and what tasks were conducted whilst in a telehealth consultation. From these discussions, communication between specialists and their patients during telehealth consultations was a major focus.

During telehealth consultations with their patients, specialists noted that they multitasked, particularly by accessing further information regarding the patient they were reviewing. However, specialists stated that this was not a different experience to when they multitask during in-person consultations. For telephone consultations, specialists said that they informed the patient on the call when they were multitasking so that the patient was aware of them doing so.

If it's a telephone telehealth consultation, I may be multitasking, but it's usually looking up some results or other imaging while I'm talking to them about the clinical side of things, or their medications, or things like that. So that way I can then move onto the next step, because I've just seen the information. [210119_2]

Specialists noted that patients also performed multitasking at times, for example the patient could be driving, or were not at home, during telehealth telephone calls. However patient multitasking was not seen as complementary to the telehealth consultation.

When they're [patients] outside you know, because it's very noisy, they've got a noisy background or they've got little kids, and I can feel that sometimes they're a bit distracted. And I don't know what they're actually doing but often that's the downside of telehealth if they're outside or some of them are driving, so I might be on speaker phone. Or they're outside with their friends, or even one was in the shopping centre. [201208]

Specialists observed that telehealth consultations were often shorter in duration than those held when patients were present in the surgery, in-person. This was particularly evident when the patient was one that was new to the specialist.

The length of the consultation would definitely be different on telehealth [in comparison to in-person] because – especially for new patients it's very difficult to assess what they're like, and obviously I can't examine them physically. So, that would have shortened the usual consultation if it was done face-to-face [in-person]. And it's just like I think, face to face [in-person], you tend to have that personal connection as well. You get to talk to them a little bit more in depth because I could gauge what their facial expression and body language is like. And also, I get to examine them, so definitely a face-to-face [in-person] consult for a new patient is much more preferable than telehealth. And a telehealth consultation would be a lot shorter and not as thorough as a face-to-face [in-person] [201208]

Benefits and barriers of telehealth

To further explore the impact of the telehealth medium on consultations, specialists were asked about advantages and disadvantages of conducting telehealth consultations on communicating with their patients over the phone.

Convenience was the main benefit of using telehealth mentioned by specialists. Telehealth consultations were seen as a quick and easy way to be able to communicate information to the patient. This was seen as of particular benefit to patients who had to be absent from work or travel far, to attend an in-person consultation, and those who would be receiving routine results that do not require immediate follow-up.

There are patients who I wouldn't inconvenience to come and see me in the office. I've done a colonoscopy, taken out a tiny polyp – I would feel bad if they took a half day off work to come and see me so I could say everything was fine. There's this little polyp. See you in five years. And yet I'm quite comfortable doing that by telephone. [201016]

The main difficulty with telehealth mentioned by specialists was the inability to view (in telephone consultations) and to physically examine a patient (in both telephone and videoconferencing consultations). This component of delivering medical care to patients by specialists via telehealth, was particularly difficult for new patients. The lack of physical examinations created concern for specialists surrounding missing a critical diagnosis or symptom, which could impact on delivery of care and clinical outcomes. Specialists at times

I've come to realise that I don't like telehealth for a new patient at all. I miss out on far too much... There's so much we take in just with a glance. And any patient that I'm seeing might have a bowel cancer or could have a serious problem which I'm in danger of neglecting. I feel as though I'm not doing the right thing by a brand new patient. I can't feel their abdomen. I can't see how many notches they've taken in their belt to get an idea of how much weight they've lost. You can tell a sick patient. And I think that's very difficult over the – particularly over the telephone. [201016]

Strategies to improve telehealth

Techniques that specialists used in order to improve communication with their patients during both telephone and videoconferencing telehealth consultations were raised. Specialists used a multitude of strategies in attempts to improve the conversational flow of telehealth consultations to improve doctor-patient communication. While many of these strategies may also be present in in-person consultations, reporting of considered use of these strategies highlight the way in which the specialists consciously prepared for their communicative approaches when using telehealth. These strategies included rapport building such as using small talk, humour, and active listening to distinguish the patient's tone.

I do try to listen more on the phone, trying to picture, I guess, from the tone of their [patient's] voice and the way they speak, just trying to gauge – are they anxious or are they calm? [201208]

For difficult conversations during telehealth, such as delivery of bad news or complex medical information, specialists would slowly build up to the topic so as to prepare the patient by building rapport with the patient. This was also used as a strategy by the specialist to gauge whether the conversation should be carried out in-person instead.

Difficult topics are difficult over the phone or face-to-face [in-person] and you just need to make an assessment from the initial part – because you won't dive into a difficult topic, you'll try and establish some kind of rapport. And you can work out whether or not it's going to be possible to do over the phone." [210805_1]

Specialists reported that they felt that patients effectively understood what they were being told by the specialist as they asked the patient throughout and at the end of telehealth consultations whether they had any questions for the specialist. Additionally, specialists summarised information at the end of telehealth consultations for patients. These techniques were considered as additional to usual practice in in-person consultations and were reported as designed to ensure patients left the telehealth consultation armed with adequate information regarding what was discussed.

It's [providing the patient with opportunity to ask questions] probably a natural flow of conversation, because if they [patients] want to ask a question just after I've said something, or I normally use ... "Let me come to that in a second, I'll just complete the synopsis or the overall picture for you and then tell you where that question fits in to what we're talking about." And just before I've done the summary ... I've usually said, "Oh look, so this is where we're at, any questions? And then I just reiterate what we're doing. [210119_2]

Discussion

This study explored gastrointestinal specialists' experiences of telehealth during the COVID-19 pandemic. Gastroenterological complaints are often personal and potentially embarrassing. The interpretation of subtle cues is paramount and difficult where 'bandwidth' is narrow. These are specific challenges to gastroenterology and necessitate investigation. The specialists interviewed perceived some aspects of telephone and videoconference telehealth consultations to be the same as in-person consultations, such as how they prepared for telehealth consultations, however communication practices in telehealth consultations require more care from specialists due to lack of visual cues (in telephone consultations) and physical examination (in both telephone and videoconferencing) limiting opportunities for further discussion. Specialists reported choosing to use several conversational strategies to

specifically support effective telehealth communication, such as rapport building and confirming patient understanding through question asking. These were viewed as a means to adjust their communication with patients to account for perceived interactional risks in using telehealth.

While there were perceived benefits to telehealth, discussion of telehealth being more suited to straightforward clinical situations where relationships were already established in our study, demonstrates that identified barriers and facilitators may extend beyond communication between patients and providers but that communication can directly influence care delivery. Consideration of communication pathways has been discussed as being important in improving innovative healthcare delivery such as telehealth to potentially lead to improved clinical outcomes health outcomes and decreased costs.(Wu & Brannon, 2023) While telehealth does not require entirely new strategies, it does demand the modification of communication strategies usually used in in-person consultations. Not all dimensions of a consultation transfer equally. As with the specialists in this research identifying aspects of rapport building requiring deliberative strategies as well as reporting challenges with difficult conversations, other research has shown that healthcare providers found it particularly challenging to convey empathy remotely (Kennedy et al., 2021). Further, Shaw et al (2020) (Shaw et al., 2020) noted how latency and technical issues with video or audio (both for telephone or videoconferencing) during a consultation disrupted the flow of conversation, and sometimes resulted in incorrect information being communicated.

In this study, specialists offered strategies to improve telehealth, which focused on how they could improve communication with patients that they were not co-located with. Multitasking from both the specialist and patient was acknowledged as occurring frequently during telephone telehealth consultations. Multitasking, without visual input, can impact how the conversation unfolds, as observed in our earlier study on recorded specialist telehealth consultations (White et al., 2022). In telephone-based telehealth, and even sometimes in videoconferencing, multitasking can be accomplished without the requirement to ensure adequate gaze to the patient as compared to in in-person (Dowell et al., 2013; Mikesell, 2013). Given patients cannot see what a clinician is doing over the phone but are able to for example, hear the sound of the keyboard, we suggest that doctors tell their patient when they are multitasking and why. This would help to engage the patient more in the conversation and not make them feel that the clinician is distracted. Similarly, in reference to multitasking from the patient's end, patients might arrange a suitable time for telehealth consultations to minimise multitasking at their end, which may be distracting to clinician and patient alike. This is further highlighted by multiple studies that found patients would bring a 'casual' attitude to a telehealth consultation without the formality and gravitas of a consulting room (Bos et al., 2021; Breton et al., 2021; Brickhill-Atkinson & Hauck, 2021; Wiadji et al., 2021), as patients may associate the telephone with more casual conversation.

Telehealth consultations were generally perceived as shorter in duration by specialists. This may be because telehealth consultations were held more often with less complex patients who were already familiar to the specialist. A study by Galle (2021) (Galle et al., 2021) also noted that consultation times were shorter in telehealth consultations compared to in-person consultations, stating that lab reports, prescriptions and referrals could be accessed digitally. However, in some other studies, clinicians noted that telephone consultations were not shorter than in-person consultations due to the many questions that patients asked, language

barriers, difficulty in rounding off a consultation, and the additional administrative tasks that were necessary for arranging investigations and payment (Bos et al., 2021). This warrants further investigation.

In both telephone and videoconferencing telehealth consultations, the absence of a physical examination and ramifications surrounding this, was a recurring theme in this study and echoes that noted in other studies (Galle et al., 2021; Kemp et al., 2021; Kennedy et al., 2021); this is not trivial and cannot be ignored (Barney et al., 2020; Bos et al., 2021; Galle et al., 2021; Iyer et al., 2021; Kemp et al., 2021; Kennedy et al., 2021). The inability to perform physical examinations significantly hindered clinicians' abilities to estimate patients' health, ascertain diagnostic certainty and make decisions (Barney et al., 2020; Bos et al., 2021; Kennedy et al., 2021; Wiadji et al., 2021). Not being able to physically assess the patient, inherent in a consequential telehealth consultation imposes an additional subtle cognitive bias that may be mitigated by the adoption of a 'better safe than sorry' attitude; over-prescribing treatments and diagnostic procedures to compensate for what might be missed. In counterpoint to this observation, one study of primary care physicians found that clinicians noted that the lack of physical examination prompted them to become better diagnosticians and that they had to instead rely on intuition to make decisions (Gomez et al., 2021; Haimi et al., 2018). This suggests that further strategies might be developed to make the most of the telehealth and its limitations, and that rather than simply employing conventional history taking techniques, there may be the potential to optimise the enhanced aural awareness.

Prior to COVID-19, telehealth was not widely used by specialists in Australia, with some exceptions around the provision of care to rural and remote patients particularly for shorter follow up and review visits (Smith & Gray, 2009). The breadth and volume of telehealth services provided by specialists required during COVID-19 is far greater than before, leaving specialists potentially underprepared for such consultations. Specialists in this study had received very limited or no training for provision of clinical care via telehealth, consistent with other studies (Elawady et al., 2020). Bhatt (2018) (Bhatt et al., 2018) found that healthcare providers welcomed tuition and stated that it improved their confidence (Bhatt et al., 2018; Cantone et al., 2019; Haimi et al., 2018; Maleki et al., 2018). Further exploration of training that specialists require, and the design of such resources, is needed to provide adequate support to specialists as telehealth use increases.

One of this study's limitations was the recruitment process. Even though care was taken to interview as diverse a population of gastrointestinal surgeons as feasible, we may have selected for those specialists who had strong views about telehealth. To overcome this bias, the study continued to collect data until thematic saturation was reached. Interviews were conducted via telephone during the initial stages of the COVID-19 pandemic at a time when cases within the study location were generally low with some restrictions in terms of social distancing in place as it was prior to vaccinations being available. There were some restrictions on clinical practice prior to the interviews, but these were primarily resolved at the time of interview. This meant that specialists interviewed had several months of experience in telehealth and were able to reflect on impact on practice accordingly. The interview guide used the term telehealth which did not differentiate between phone and video, and therefore did not explore the experiences of the different modalities of telehealth in detail. Further investigation is required to deeply examine the varying impacts on patient-doctor communication between these two modalities. The study was strengthened by the set

questions of the interview guide that provided focus while allowing for open discussion, which meant thematic saturation was able to be reached prior to ceasing recruitment.

Conclusions

Constraints to delivering healthcare using telehealth include cost to the practice, inability to physically examine the patient, and technical difficulties. However, the positive of convenience for both the clinician and the patient cannot be ignored, even if the outcome is a commitment to take things further with an in-person follow up consultation. As telehealth continues to have a role within the secondary healthcare system in Australia, there remains a need to support its effective use, particularly in support communication. Improving communication within telehealth means proactively addressing the barriers that telephone and video calls present. This can include identifying the clinical situations, patient factors, and patients best suited to telephone and/or video consultations and using adjusted communicative strategies to ensure potentially disruptive aspects, such as multitasking, latency, and reduced access to non-verbal cues, are well managed.

References

- AHPRA. (2022). Telehealth guidance for practitioners. Australian Health Practitioner Regulation Agency. <https://www.ahpra.gov.au/Resources/Telehealth-guidance-for-practitioners.aspx>
- Andrikopoulos, S., & Johnson, G. (2020). The Australian response to the COVID-19 pandemic and diabetes - Lessons learned. *Diabetes Res Clin Pract*, 165, 108246. <https://doi.org/10.1016/j.diabres.2020.108246>
- Barney, A., Buckelew, S., Mesheriakova, V., & Raymond-Flesch, M. (2020). The COVID-19 Pandemic and Rapid Implementation of Adolescent and Young Adult Telemedicine: Challenges and Opportunities for Innovation. *J Adolesc Health*, 67(2), 164-171. <https://doi.org/10.1016/j.jadohealth.2020.05.006>
- Bate, N. J., Xu, S. C., Pacilli, M., Roberts, L. J., Kimber, C., & Nataraja, R. M. (2021). Effect of the COVID-19 induced phase of massive telehealth uptake on end-user satisfaction. *Internal Medicine Journal*, 51(2), 206-214. <https://doi.org/https://dx.doi.org/10.1111/imj.15222>
- Bhatt, S., Isaac, R., Finkel, M., Evans, J., Grant, L., Paul, B., & Weller, D. (2018). Mobile technology and cancer screening: Lessons from rural India. *J Glob Health*, 8(2), 020421. <https://doi.org/10.7189/jogh.08.020421>
- Bos, W. H., van Tubergen, A., & Vonkeman, H. E. (2021). Telemedicine for patients with rheumatic and musculoskeletal diseases during the COVID-19 pandemic; a positive experience in the Netherlands. *Rheumatol Int*, 41(3), 565-573. <https://doi.org/10.1007/s00296-020-04771-6>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Breton, M., Sullivan, E. E., Deville-Stoetzel, N., McKinstry, D., DePuccio, M., Sriharan, A., Deslauriers, V., Dong, A., & McAlearney, A. S. (2021). Telehealth challenges during COVID-19 as reported by primary healthcare physicians in Quebec and Massachusetts. *BMC Family Practice*, 22(1), 192. <https://doi.org/10.1186/s12875-021-01543-4>
- Brickhill-Atkinson, M., & Hauck, F. R. (2021). Impact of COVID-19 on Resettled Refugees. *Prim Care*, 48(1), 57-66. <https://doi.org/10.1016/j.pop.2020.10.001>
- Cantone, R. E., Palmer, R., Dodson, L. G., & Biagioli, F. E. (2019). Insomnia Telemedicine OSCE (TeleOSCE): A Simulated Standardized Patient Video-Visit Case for Clerkship Students. *MedEdPORTAL*, 15, 10867. https://doi.org/10.15766/mep_2374-8265.10867
- Chang, P. J., Jay, G. M., Kalpakjian, C., Andrews, C., & Smith, S. (2021). Patient and Provider-Reported Satisfaction of Cancer Rehabilitation Telemedicine Visits During the COVID-19 Pandemic. *Pm & R*, 17, 17. <https://doi.org/https://dx.doi.org/10.1002/pmrj.12552>
- Chesnel, C., Hentzen, C., Le Breton, F., Turmel, N., Tan, E., Haddad, R., & Amarenco, G. (2021). Efficiency and satisfaction with telephone consultation of follow-up patients in neuro-urology: Experience of the COVID-19 pandemic. *Neurourology & Urodynamics*, 06, 06. <https://doi.org/https://dx.doi.org/10.1002/nau.24651>
- Donelan, K., Barreto, E. A., Sossong, S., Michael, C., Estrada, J. J., Cohen, A. B., Wozniak, J., & Schwamm, L. H. (2019). Patient and clinician experiences with telehealth for patient follow-up care. *Am J Manag Care*, 25(1), 40-44.
- Dowell, A., Stubbe, M., Scott-Dowell, K., Macdonald, L., & Dew, K. (2013). Talking with the alien: interaction with computers in the GP consultation. *Aust J Prim Health*, 19(4), 275-282. <https://doi.org/10.1071/PY13036>
- Elawady, A., Khalil, A., Assaf, O., Toure, S., & Cassidy, C. (2020). Telemedicine during COVID-19: a survey of Health Care Professionals' perceptions. *Monaldi Archives for Chest Disease*, 90(4), 22. <https://doi.org/https://dx.doi.org/10.4081/monaldi.2020.1528>
- Elder, A. T., McManus, C., Patrick, A., Nair, K., Vaughan, L., & Dacre, J. (2017). The value of the physical examination in clinical practice: an international survey. *Clinical Medicine*, 17, 490-498.
- Galle, A., Semaan, A., Huysmans, E., Audet, C., Asefa, A., Delvaux, T., Afolabi, B. B., El Ayadi, A. M., & Benova, L. (2021). A double-edged sword-telemedicine for maternal care during COVID-19: findings from a global mixed-methods study of healthcare providers. *BMJ Glob Health*, 6(2). <https://doi.org/10.1136/bmjgh-2020-004575>

- Gentry, M. T., Puspitasari, A. J., McKean, A. J., Williams, M. D., Breiting, S., Geske, J. R., Clark, M. M., Moore, K. M., Frye, M. A., & Hilty, D. M. (2021). Clinician Satisfaction with Rapid Adoption and Implementation of Telehealth Services During the COVID-19 Pandemic. *Telemedicine Journal & E Health*, 27(12), 1385-1392. <https://doi.org/10.1089/tmj.2020.0575>
- Gomez, T., Anaya, Y. B., Shih, K. J., & Tarn, D. M. (2021). A Qualitative Study of Primary Care Physicians' Experiences With Telemedicine During COVID-19. *Journal of the American Board of Family Medicine: JABFM*, 34(Suppl), S61-S70. <https://doi.org/https://dx.doi.org/10.3122/jabfm.2021.S1.200517>
- Haimi, M., Brammli-Greenberg, S., Waisman, Y., & Baron-Epel, O. (2018). Physicians' experiences, attitudes and challenges in a Pediatric Telemedicine Service. *Pediatric Research*, 84(5), 650-656. <https://doi.org/https://dx.doi.org/10.1038/s41390-018-0117-6>
- Hasani, S. A., Ghafri, T. A., Al Lawati, H., Mohammed, J., Al Mukhainai, A., Al Ajmi, F., & Anwar, H. (2020). The Use of Telephone Consultation in Primary Health Care During COVID-19 Pandemic, Oman: Perceptions from Physicians. *J Prim Care Community Health*, 11, 2150132720976480. <https://doi.org/10.1177/2150132720976480>
- Hatcher-Martin, J. M., Anderson, E. R., & Factor, S. A. (2016). Patient Acceptance and Potential Cost-Savings of Teleneurology in an Academic Outpatient Movement Disorders Practice (P1.022). *Neurology*, 86.
- Imlach, F., McKinlay, E., Middleton, L., Kennedy, J., Pledger, M., Russell, L., Churchward, M., Cumming, J., & McBride-Henry, K. (2020). Telehealth consultations in general practice during a pandemic lockdown: survey and interviews on patient experiences and preferences. *BMC Fam Pract*, 21(1), 269. <https://doi.org/10.1186/s12875-020-01336-1>
- Iyer, S., Mehta, P., Weith, J., Hoang-Gia, D., Moore, J., Carlson, C., Choe, P., Sakai, E., & Gould, C. (2021). Converting a Geriatrics Clinic to Virtual Visits during COVID-19: A Case Study. *Journal of Primary Care & Community Health*, 12, 21501327211000235. <https://doi.org/10.1177/21501327211000235>
- Kemp, M. T., Liesman, D. R., Williams, A. M., Brown, C. S., Iancu, A. M., Wakam, G. K., Biesterveld, B. E., & Alam, H. B. (2021). Surgery Provider Perceptions on Telehealth Visits During the COVID-19 Pandemic: Room for Improvement. *J Surg Res*, 260, 300-306. <https://doi.org/10.1016/j.jss.2020.11.034>
- Kennedy, N. R., Steinberg, A., Arnold, R. M., Doshi, A. A., White, D. B., DeLair, W., Nigra, K., & Elmer, J. (2021). Perspectives on Telephone and Video Communication in the Intensive Care Unit during COVID-19. *Ann Am Thorac Soc*, 18(5), 838-847. <https://doi.org/10.1513/AnnalsATS.202006-729OC>
- Kirby, D. J., Fried, J. W., Buchalter, D. B., Moses, M. J., Hurly, E. T., Cardone, D. A., Yang, S. S., Virk, M. S., Rokito, A. S., Jazrawi, L. M., & Campbell, K. A. (2021). Patient and Physician Satisfaction with Telehealth During the COVID-19 Pandemic: Sports Medicine Perspective. *Telemedicine Journal & E Health*, 27, 27. <https://doi.org/https://dx.doi.org/10.1089/tmj.2020.0387>
- Ly, B. A., Labonté, R., Bourgeault, I. L., & Niang, M. N. (2017). The individual and contextual determinants of the use of telemedicine: A descriptive study of the perceptions of Senegal's physicians and telemedicine projects managers. *PLoS One*, 12(7), e0181070. <https://doi.org/10.1371/journal.pone.0181070>
- Mahtta, D., Daher, M., Lee, M. T., Sayani, S., Shishehbor, M., & Virani, S. S. (2021). Promise and Perils of Telehealth in the Current Era. *Current Cardiology Reports*, 23(9), 115. <https://doi.org/10.1007/s11886-021-01544-w>
- Maleki, M., Mousavi, S. M., Khosravizadeh, O., Heidari, M., Raadabadi, M., & Jahanpour, M. (2018). Factors Affecting Use of Telemedicine and Telesurgery in Cancer Care (TTCC) among Specialist Physicians. *Asian Pacific Journal of Cancer Prevention: Apjcp*, 19(11), 3123-3129.
- Malliaras, P., Merolli, M., Williams, C. M., Caneiro, J. P., Haines, T., & Barton, C. (2021). 'It's not hands-on therapy, so it's very limited': Telehealth use and views among allied health clinicians during the coronavirus pandemic. *Musculoskelet Sci Pract*, 52, 102340. <https://doi.org/10.1016/j.msksp.2021.102340>
- McKenzie, R., & Kanhutu, K. (2021). Telehealth quality check: Is it time for national standards? *Australian Journal for General Practitioners*, 50, 778-781. <https://www1.racgp.org.au/ajgp/2021/october/telehealth-quality-check>
- Mikesell, L. (2013). Medicinal relationships: caring conversation. *Med Educ*, 47(5), 443-452. <https://doi.org/10.1111/medu.12104>

- Miner, H., Koenig, K., & Bozic, K. J. (2020). Value-based Healthcare: Not Going Anywhere-Why Orthopaedic Surgeons Will Continue Using Telehealth in a Post-COVID-19 World. *Clinical Orthopaedics & Related Research*, 478(12), 2717-2719. <https://doi.org/https://dx.doi.org/10.1097/CORR.0000000000001561>
- Mubaraki, A. A., Alrabie, A. D., Sibyani, A. K., Aljuaid, R. S., Bajaber, A. S., & Mubaraki, M. A. (2021). Advantages and disadvantages of telemedicine during the COVID-19 pandemic era among physicians in Taif, Saudi Arabia. *Saudi Medical Journal*, 42(1), 110-115. <https://doi.org/https://dx.doi.org/10.15537/smj.2021.1.25610>
- Peterson, M. C., Holbrook, J. H., Von Hales, D., Smith, N. L., & Staker, L. V. (1992). Contributions of the history, physical examination, and laboratory investigation in making medical diagnoses. *West J Med*, 156(2), 163-165.
- Ruiz Morilla, M. D., Sans, M., Casasa, A., & Gimenez, N. (2017). Implementing technology in healthcare: insights from physicians. *BMC Medical Informatics & Decision Making*, 17(1), 92. <https://doi.org/https://dx.doi.org/10.1186/s12911-017-0489-2>
- Russo, J. E., McCool, R. R., & Davies, L. (2016). VA Telemedicine: An Analysis of Cost and Time Savings. *Telemedicine Journal & E Health*, 22(3), 209-215. <https://doi.org/10.1089/tmj.2015.0055>
- Savira, F., Orellana, L., Hensher, M., Gao, L., Sanigorski, A., Mc Namara, K., Versace, V. L., Szakiel, J., Swann, J., Manias, E., & Peeters, A. (2023). Use of General Practitioner Telehealth Services During the COVID-19 Pandemic in Regional Victoria, Australia: Retrospective Analysis. *J Med Internet Res*, 25, e39384. <https://doi.org/10.2196/39384>
- Scott Kruse, C., Karem, P., Shifflett, K., Vegi, L., Ravi, K., & Brooks, M. (2018). Evaluating barriers to adopting telemedicine worldwide: A systematic review. *J Telemed Telecare*, 24(1), 4-12. <https://doi.org/10.1177/1357633x16674087>
- Shaw, S. E., Seuren, L. M., Wherton, J., Cameron, D., A'Court, C., Vijayaraghavan, S., Morris, J., Bhattacharya, S., & Greenhalgh, T. (2020). Video Consultations Between Patients and Clinicians in Diabetes, Cancer, and Heart Failure Services: Linguistic Ethnographic Study of Video-Mediated Interaction. *J Med Internet Res*, 22(5), e18378. <https://doi.org/10.2196/18378>
- Smith, A. C., & Gray, L. C. (2009). Telemedicine across the ages [<https://doi.org/10.5694/j.1326-5377.2009.tb02255.x>]. *Medical Journal of Australia*, 190(1), 15-19. <https://doi.org/https://doi.org/10.5694/j.1326-5377.2009.tb02255.x>
- Snoswell, C. L., Caffery, L. J., Taylor, A., Haydon, H. M., Thomas, E., & Smith, A. C. (2020). Telehealth and coronavirus: Medicare Benefits Schedule (MBS) activity in Australia. *Centre for Online Health*, The University of Queensland. <https://coh.centre.uq.edu.au/telehealth-and-coronavirus-medicare-benefits-schedule-mbs-activity-australia>
- Sugarman, D. E., Horvitz, L. E., Greenfield, S. F., & Busch, A. B. (2021). Clinicians' Perceptions of Rapid Scale-up of Telehealth Services in Outpatient Mental Health Treatment. *Telemedicine Journal & E Health*, 18, 18. <https://doi.org/https://dx.doi.org/10.1089/tmj.2020.0481>
- Taylor, A., Caffery, L. J., Gesesew, H. A., King, A., Bassal, A.-r., Ford, K., Kealey, J., Maeder, A., McGuirk, M., Parkes, D., & Ward, P. R. (2021). How Australian Health Care Services Adapted to Telehealth During the COVID-19 Pandemic: A Survey of Telehealth Professionals [Original Research]. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.648009>
- Thomas, E. E., Haydon, H. M., Mehrotra, A., Caffery, L. J., Snoswell, C. L., Banbury, A., & Smith, A. C. (2022). Building on the momentum: Sustaining telehealth beyond COVID-19. *Journal of Telemedicine and Telecare*, 28(4), 301-308. <https://doi.org/10.1177/1357633x20960638>
- Wahezi, S. E., Duarte, R. A., Yerra, S., Thomas, M. A., Pujar, B., Sehgal, N., Argoff, C., Manchikanti, L., Gonzalez, D., Jain, R., Kim, C. H., Hossack, M., Senthelal, S., Jain, A., Leo, N., Shaparin, N., Wong, D., Wong, A., Nguyen, K., Kaye, A. D. (2020). Telemedicine During COVID-19 and Beyond: A Practical Guide and Best Practices Multidisciplinary Approach for the Orthopedic and Neurologic Pain Physical Examination. *Pain Physician*, 23(4S), S205-S238.
- White, A. E. C. (2020). When and how do surgeons initiate noticings of additional concerns? *Social Science & Medicine*, 244, 112320. <https://doi.org/https://doi.org/10.1016/j.socscimed.2019.05.025>

White, S. J., Nguyen, A., & Cartmill, J. A. (2022). Agency and the telephone: Patient contributions to the clinical and interactional agendas in telehealth consultations. *Patient Education and Counseling*, 105(7), 2074-2080. <https://doi.org/https://doi.org/10.1016/j.pec.2022.01.004>

Wiadji, E., Mackenzie, L., Reeder, P., Gani, J. S., Carroll, R., Smith, S., Frydenberg, M., & O'Neill, C. J. (2021). Utilization of telehealth by surgeons during the COVID 19 pandemic in Australia: lessons learnt. *ANZ Journal of Surgery*, 26, 26. <https://doi.org/https://dx.doi.org/10.1111/ans.16693>

Wu, Q. L., & Brannon, G. E. (2023). What's after COVID-19?: Communication pathways influencing future use of telehealth. *Patient Educ Couns*, 118, 108025. <https://doi.org/10.1016/j.pec.2023.108025>

Appendix A – Interview Guide

Preparation for telehealth consultations

1. What training or support have you been provided for telehealth?
2. What resources do you access during telehealth consultations?
 - a. Do you search for these during or before the call? Why?
3. How do your telehealth consultations differ between new and regular patients?
4. How do you determine whether a consultation can be via telehealth as opposed to F2F?
5. How do you confirm you are speaking to the correct patient?
6. What methods do you use to build rapport with patients given you cannot see them?

Delivery of healthcare over the phone

7. Do you multitask during telehealth consultations?
 - a. What activities are you doing?
8. How often are your patients multitasking during a call?
 - a. What tasks are they doing?
 - b. Have you had to call back at another time?
9. Are your calls generally regarding one topic?
 - a. How do you transition between topics?
10. How do you deliver bad news over the phone?
11. What difficulties have you faced regarding:
 - a. Flow of conversation
 - b. Difficult topics to discuss
 - c. No visual cues from patient
 - d. Limited physical examinations
 - e. Technical issues
 - f. Patient resistance to telehealth

Ending telehealth consults

12. What methods do you use to ensure patients have understood what you have told them?
13. How do you provide opportunities for patients to ask further questions?
14. How do you organise face to face [in-person] follow-ups?

Appendix B – Analysis Framework

Suitability of telehealth consultations

- Training
- Deciding mode of consultation
 - Condition characteristics
 - Patient preferences
- Resources required
- Similarities with in-person

Communication during telehealth consultations

- Multitasking
 - From patient
 - From specialist
- Telehealth literacy
 - Of patient
 - Of specialist
- Length of consultation

Benefits and barriers of telehealth

- Benefits of telehealth
 - Convenience
- Difficulties with telehealth
 - No visual cues
 - Technological barriers
 - Costs
 - Administrative burden

Strategies to improve telehealth

- Rapport building
- Asking more questions



QUALITATIVE HEALTH COMMUNICATION

VOLUME 3, ISSUE 1, 2024