




Original research

Young persons and healthcare professionals experience of virtual gastroenterology consultations: a multicentre survey conducted during the COVID-19 pandemic

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ABSTRACT

Objective To explore Young Persons (YP) and healthcare professionals (HCP) experiences of virtual consultations (VC) and establish whether developmentally appropriate healthcare can be delivered virtually.

Method YP and HCP questionnaire surveys were designed and piloted. Electronic questionnaire links were sent by post, email or text message January–April 2021 to YP aged 13–25 years old, with predefined chronic gastrointestinal conditions, attending a gastroenterology/hepatology VC. HCP undertaking VC were invited to complete staff questionnaire. Results were anonymous and collated using Excel version 2302.

Results Five UK hospital trusts participated, with 35 HCP responses. Of the 100 YP completing the survey 66% were female and 34% male aged between 13 years and 25 years (median: 18 years). 13% were new appointments and 87% follow ups, 29% were by video, 69% by phone and 2% gave no response. 80% of HCP spoke to YP directly but not privately (69%). 87% of YP and 88% HCP found VC useful. 83% of YP want VC again, although 20% preferred face to face. 43% of HCP required improved phone/internet connection. 77% of YP required hospital appointments for tests following VC.

Conclusions Overall respondents were satisfied with VC, finding them useful, convenient and time saving. Successful VC rely on appropriate patient selection and availability of reliable technology. Patient preference is key which may alter with time.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Published research explores the virtual consultations (VC) experience of older adults with gastroenterology and hepatology conditions but not young persons' (YP) experience. In other specialities, research with YP focuses on clinical effectiveness of virtually delivered health interventions, rather than patient experience of VC.

WHAT THIS STUDY ADDS

⇒ This study found that YP and healthcare professional were generally satisfied with virtual clinics and felt they were useful, convenient and saved time. However, direct engagement and privacy with YP were reported to be more difficult with VC and improvements to information technology are needed.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ With appropriate patient selection, availability of reliable internet connection and technological resources VC have a useful role, but patient preference is key and a combination of face to face and VC are likely to be the best way of providing holistic, developmentally appropriate healthcare. As sufficient data were not available to calculate overall response rate and bias, it would be useful to repeat this study outside the confines of the pandemic and to include this data.

INTRODUCTION

During the COVID-19 pandemic many clinic consultations moved to a virtual platform. There are both advantages and disadvantages to virtual consultations (VC),¹ with additional considerations when working with young persons (YP).

For patients with a chronic health condition, adolescence can be particularly challenging. Risk taking behaviours, non-concordance with treatment and disengagement with health services are generally higher in YP.² It is important to minimise the risk of YP becoming disengaged with services, especially during the process of transition to adult care, as this may negatively impact their health.

During adolescence health behaviours are developed which will be carried into adulthood.³ Clinic consultations give healthcare professional (HCP) opportunity to help YP adopt positive, lifelong health behaviours, become partners in their healthcare and gain confidence and autonomy as they learn to navigate life with a chronic condition. Addressing the holistic needs of the patient, including the identification and management of social or safeguarding concerns, is also important during appointments.

Existing research explores the VC experience of older adults with GI conditions rather than YP.^{4 5} Research from other specialities focuses on clinical effectiveness of virtually delivered health interventions rather than patient experience of VC.^{6 7 8 9}

The British Society of Gastroenterology Adolescent and Young Person's (BSG AYP) working group wanted to explore the experiences of YP with chronic gastrointestinal (GI) conditions, and the HCP involved in their VC.

OBJECTIVES

1. To determine whether YP find VC an acceptable method of consultation.
2. To explore what improvements can be made to enhance YP experiences of VC
3. To establish YP preferences for how future consultations take place.
4. To ascertain whether HCP feel that they can adequately meet the healthcare needs of YP via VC.

METHOD

The BSG AYP developed service user and HCP questionnaire surveys. These were piloted by a group of 10 HCP and YP who completed the draft survey and provided feedback on the questionnaire design. The survey was registered with the governance team in each participating trust. The surveys used a Likert scale (see online supplemental files) to measure participant responses. Open ended questions explored what participants felt would improve their VC experience.

Participants included in the study were YP aged 13–25 years old with a chronic GI condition who had a virtual gastroenterology, hepatology or nutrition clinic

consultation during the 4-week data collection period. Ages 13–25 were chosen to reflect this important developmental phase in which the brain is maturing, and healthcare transition is taking place, increasing the importance of developmentally appropriate healthcare (DAH).^{10 11} HCP who had undertaken a VC with YP meeting the inclusion criteria was invited to complete the staff survey.

Those excluded from the study were under 13 years old or over 25 years old, YP without a GI condition requiring long-term follow-up, YP seen outside of the 4-week data collection window, and YP who had not had a VC. HCP who had not undertaken VC was not asked to participate.

Due to COVID-19, participating trusts could not do their data collection in the same 4-week period. Therefore, each trust identified a 4-week data collection window between January and April 2021 to send their surveys. Staff in each trust reviewed their clinic lists for the data collection period and identified all YP and HCP meeting the inclusion criteria. Participants received the survey monkey questionnaire link by post, email or text message.

Survey results were anonymous with a trust specific survey link so that each trust could access their own results. Anonymised data from all the participating trusts were collated using Excel.

RESULTS

Five trusts in the UK participated with 35 HCP responses. Trusts 1 and 2 had 18 and 20 responses, respectively (no data available on number of eligible participants or whether face to face (F2F) or VC offered). Trust 3 offered only VC and had 27 responses (no data on number of eligible participants). Trust 4 offered both F2F and VC and had 21 responses from 64 eligible YP. Trust 5 offered both F2F and VC and had 14 responses from a possible 68 YP (36 females and 32 males).

Of the 100 patients completing the survey, 66% were female and 34% male aged between 13 years and 25 years (median: 18 years). Sixty-four surveys were completed by the YP themselves, 14 by parent/carer and YP together, 20 by parent/carer and 2 did not state who had completed it. Thirteen per cent were new appointments and 87% follow-ups, 29% were by video, 69% by phone and 2% gave no response. The YP responses to the likert scale questions ([figure 1](#)), open ended questions ([figure 2](#)), comparison of respondents willing to incorporate VC into their future care ([table 1](#)) and the summary of HCP responses ([table 2](#)) are given below.

DISCUSSION

Patient centred care includes offering choice over how and when they access healthcare services.¹² This study explored whether VC are a viable means of delivering

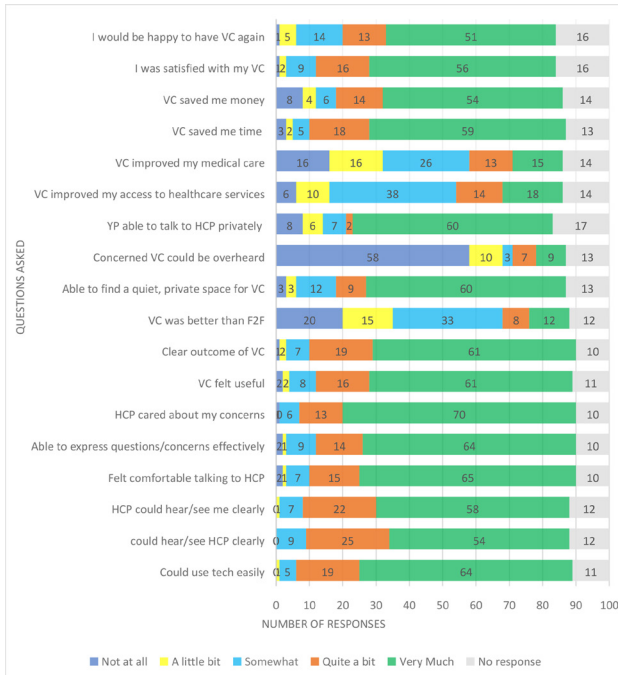


Figure 1 YP questionnaire results (Likert scale). HCP, healthcare professional; VC, virtual consultations; YP, young persons.

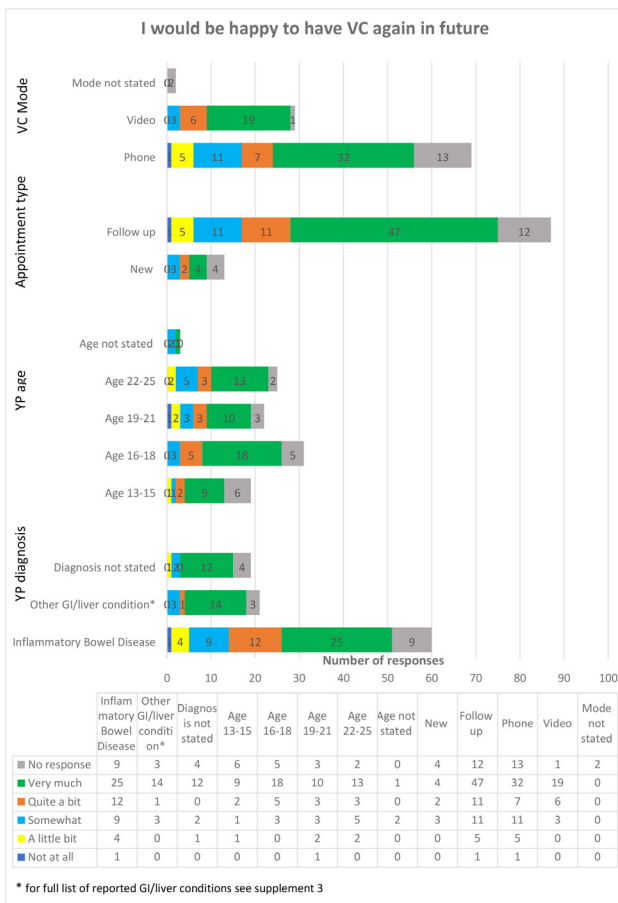


Figure 2 Comparison of respondents willing to incorporate VC into future care. GI, gastrointestinal; VC, virtual consultations; YP, young persons.

DAH in a way that was acceptable to both YP and HCP, and how their experiences could be improved.

Improving accessibility to healthcare should be a priority when developing or changing patient services.¹³ Many YP felt VC had improved their ease of access to healthcare, although these responses were given at the height of the pandemic when F2F appointments were limited, and unnecessary travel or hospital attendance was considered unsafe. It would be interesting to repeat the survey and assess this perception post pandemic.

The majority of YP reported that VC were convenience and saved time, travel and money. Many YP felt that VC provided more flexibility, more control over their own healthcare, and were more convenient as they did not have to miss work or education to attend. The latter is significant because having a chronic health condition is known to have a detrimental effect on education.^{14 15} These findings were in keeping with those of similar studies by Greenhalgh *et al*¹ and Morris *et al*.¹⁶ In the studies with adult gastroenterology patients, Abeysekera *et al*⁴ found that overall F2F consultations were preferable to VC, especially if bad news was being given, although VC were more flexible and minimised disruption to work. Shatz also found VC were time saving, convenient and increased compliance.⁵

HCP did not always have access to notes or results during VC and sometimes had difficulty arranging investigations or prescriptions afterwards. Both HCP and YP found that activities that would usually have been done in F2F appointments, such as examinations, investigations or prescription collection, required an additional hospital visit post VC; it is, therefore, interesting that many YP felt virtual clinics had saved them time.

It is important to recognise that VC will not be easily accessible or appropriate for all YP or HCP. By moving appointments to a virtual platform there is a risk of digital exclusion.¹⁷ This survey highlighted that lack of suitable technical devices, poor internet connection, poor phone signal and insufficient technical support for both patients and staff was problematic. Consideration must be given to patients with additional needs, such as learning disabilities, visual or hearing impairments, and those who do not speak English as a first language.¹⁸ If VC are to become an integral part of our health system these factors must be addressed, and technological improvements made.

Offering YP privacy and the opportunity to have part of their consultation alone is an important aspect of DAH. In this study, 69% of HCP highlighted the inability to speak to the YP without parent(s). Interestingly over half the YP felt they have spoken to the HCP privately. Achieving confidentiality during VC may be more challenging than in a F2F appointment.

HCP repeatedly stated difficulty in contacting patients during their VC slot, and that in some cases

Table 1 YP responses to open ended questions about barriers, benefits and improvements to VC

| Main benefits of VC (YP) | No. of respondent references | Is there anything that would put you off VC (YP) | No. of respondent references |
|-------------------------------------|------------------------------|---|------------------------------|
| Saves travel | 36 | If you need to see doctor for examination/have tests/collect prescription | 11 |
| More convenient | 19 | No | 10 |
| Do not miss work/school | 11 | Connection/technology issues | 8 |
| Safer during pandemic | 9 | Conversation easier F2F (nothing gets missed/misinterpreted) | 7 |
| More accessible | 6 | Prefer F2F | 6 |
| Appointment more on time with VC | 5 | VC feels less comfortable | 4 |
| Less stressful | 3 | VC feels impersonal | 4 |
| Get sooner review | 2 | Privacy issues during VC | 3 |
| Efficient | 2 | F2F feels less rushed | 3 |
| No parking problems | 2 | VC running late | 2 |
| Good for simple questions/follow-up | 1 | Might not know HCP in VC | 2 |
| More flexible | 1 | Less likely to forget questions/information in F2F | 1 |
| Cannot be late to VC | 1 | Hard of hearing and struggle with VC | 1 |
| | | Cannot see body language in VC | 1 |
| | | Want option of F2F | 1 |
| | | Didn't feel valued on phone | 1 |

F2F, face to face; HCP, healthcare professional; VC, virtual consultations; YP, young persons.

the YP themselves was not present for the VC. This can result in wastage of clinic slots and impede the ability to deliver DAH. It also limits the opportunities to promote the YP's confidence in managing their own health, which is one of the three features of transitional healthcare that has been noted to be associated with positive outcomes.¹⁹ Eighty per cent of HCP who were able to contact the patient/family for their VC were able to speak directly to the YP, despite parent/carer contact details being used in the paediatric centres. Of the 29 13–16-year-old respondents, 13 spoke to HCP alone, 5 spoke to HCP with parent/carer and there were 11 non-responders. The VC were run by doctors, nurses and dieticians, but YP did not state who the VC was with.

The findings of this survey suggest that further work is required to reiterate to young people and families that the YP needs to be present for their VC in the same way that they would be for F2F appointments, and that they require a private space for the consultation. Consideration should be given to how YP can be more effectively involved in their appointments, for example, telephoning/video calling the YP themselves during VC rather than using their parents' phone numbers in paediatric services.

In terms of safeguarding, the HCP in this study reported that they were able to follow their usual safeguarding procedures for VC in the same way as for F2F appointments. There were however concerns that with VC it may not always be clear who else was in the

Table 2 Summary of key findings from HCP questionnaire

| | HCP (N=35) |
|---|--|
| VC strengths (from Likert scale questions) | Patient was prepared for VC 90% VC consultation felt useful 88% Spoke to YP directly when phone answered for appointment 80% Technology for VC easy to use 75% |
| VC areas of concern (from Likert scale questions) | Patient had to come to hospital for tests post VC 77% Unable to speak to YP privately 69% Improved phone signal/internet connection required 43% Difficulty arranging investigations post VC 23% |
| Suggested improvements (from open ended questions) | Improve IT Patient/family to answer phone/video call during appointment slot Have YP present for VC Increase ability to speak to YP alone Having results ready and easily accessible Improved pathways for requesting tests |

HCP, healthcare professional; VC, virtual consultations; YP, young persons.

room or within earshot of the consultation. It was also more difficult to interpret body language and subtle nuances of YP or their parent/carer than in F2F consultations. As many of the consultations in this study were conducted via telephone, the HCP could not actually see the patient. These concerns are acknowledged in the Joint Statement on Virtual Consultations,²⁰ and the Royal College of Paediatrics and Child Health recommend a low threshold for F2F appointments and clinical examinations if there is any suggestion of safeguarding concerns.¹⁸

This study sought the input of YP with long-term GI conditions. There may be factors affecting YP with other health conditions, which may influence their experience of VC that were not identified on this survey.

The inclusion criteria for this study were patients with existing chronic GI conditions; hence, most VC were follow-ups. The new appointments were with YP with pre-existing GI conditions, which pre-pandemic would have been F2F, with the potential for VC follow-up post pandemic.

As not all the centres in this study had data on the number of YP eligible to participate, it is not possible to accurately calculate response rate or non-response bias.

This survey was a web-based questionnaire written in English. It is not possible to identify whether people who did not complete survey were unable to do so due to technical constraints, language barriers or whether they simply did not wish to participate.

CONCLUSIONS

Overall respondents were satisfied with virtual clinics and felt they were useful, convenient, and saved time. However, direct engagement and privacy with YP, an important consideration in DAH, were reported to be more difficult with VC.

The study highlighted that improved technology for both staff and patients is vital. In addition, improved processes for requesting investigations, prescriptions and accessing results would minimise administration time for staff and extra appointments for patients.

Successful VC rely on appropriate patient selection and availability of reliable internet connection and technological resources. It is important to recognise patient preference for F2F or VC and personalise care accordingly, acknowledging that this may alter with time and circumstance. Using a combination of F2F and VC is likely to be the best way of providing holistic, DAH.

As sufficient data were not available to calculate overall response rate and bias, it would be useful to repeat this study outside the confines of the pandemic to see whether opinions on VC remain the same, and to include this data.

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