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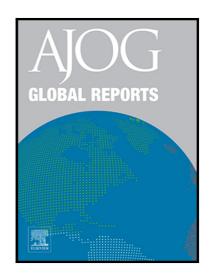
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If virtual gynecology clinics are here to stay, we need to include everyone

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COVID 19 pandemic, Gynaecology services, secondary care, telemedicine, virtual medicine

INTRODUCTION

Like the USA the UK was badly hit by the first and second wave of the COVID 19 pandemic, with hospitals being close to overwhelmed with COVID 19 patients. During the first wave in March 2020 gynecology outpatient services were stopped for several weeks and patients put on a waiting list. Staff were seconded to help the nursing staff in the intensive care unit or support the obstetric workload.

A serious concern to the health and wellbeing of the nation are patients who are awaiting surgery for either benign or malignant conditions being placed on long waiting lists, without an appropriate allocation of elective operating facilities being available (1). At the time of writing elective operating remains compromised, and has been throughout the pandemic in the UK. Looking after women placed on waiting lists who are suffering from conditions that need treatment, such as pelvic pain or menstrual disorders, adds to the clinical workload. Adding to that, women's diseases such as fibroids and endometriosis may get up-staged during the delay (2).

Given that the footfall to hospitals has had to be reduced to protect ambulatory patients from exposure to COVID 19, hospitals were reconfigured into a traffic light system of safety areas, temperature checks and mask wearing were introduced, and waiting rooms were redesigned to allow for a 2-meter distance between patients, whilst accompanying persons were not permitted.

Increasing the proportion of virtual appointments had been a declared health policy vision before the pandemic and this mode of healthcare delivery has become a focus with the pandemic (3).

Virtual clinics in gynecology were not commonplace In the UK National Health Service before the pandemic, in the USA they were emerging but not at scale (reviewed by Dorn et al. (4)).

A rapid review in summer 2020 showed telemedicine in Gynaecology was carried out in Canada, USA, UK and Australia, notably no reports were from Africa, South America and Asia. The clinical activity assessed included counselling, evaluation and management (5).

During the pandemic there was a national recognition of the need to increase the number of remote consultations (and reduce face to face), to reduce risk of transmission within healthcare and facilitate adherence to government guidance on social distancing and "stay at home" whilst continuing to deliver services. An effort was made to provide one stop clinics, where scanning and endometrial biopsies could be obtained. The Royal College of Obstetricians and Gynecologists rapidly provided useful guidance (6).

Whereas policymakers and journalists emphasized the transformative potential of video appointments, the reality for most service users was telephone appointments as their only option (7). This approach may have been acceptable at the peak of the pandemic, but it has been introduced at speed, often without adequate support (8), guidance, screening and patient choice. In order to make virtual appointments 'work' for the future, scrutiny is required of what worked well and what did not.

The authors discuss a small survey carried out in early 2021 in the context of the pandemic experience in their gynecology unit and recent literature and recommendations. Approaches to improving telemedicine in gynecology are highlighted alongside areas where more evidence is needed.

UK SURVEY ON GYNECOLOGY SERVICES DURING THE PANDEMIC

In February 2021 author EB conducted a nationwide qualitative survey via the platform of the charity Endometriosis UK asking service users which gynecology outpatient services they accessed in the pandemic, what worked well, what did not and what would participants consider worth keeping beyond the pandemic.

Health care professionals (HCPS) were asked what service they were able to deliver, what aspects improved care and what they would like to keep after the pandemic. The survey was undertaken through the platform of the Endometriosis UK website. There were 127 responses from service users and 12 from senior gynecologists. Most respondents answered all questions. The survey was open for 8 weeks. The nature of the questions, including free text, was such that responses were screened for themes rather than analyzed quantitatively. This was a convenience sample and detailed

demographic data were not recorded. The aim was to generate a better understanding from which to build more extensive research.

HCPS and service users (SUS) commented on one stop clinics (outpatient hysteroscopy and colposcopy) which were stopped initially but soon re-instated or else kept running throughout 2020, and outpatient gynecology clinics, which were changed to virtual or phone appointments in most cases. Most comments relate to general gynecology or specialist endometriosis clinics.

Common criticism included delays in or cancellation of appointments and problems getting in touch with SUS. Service users praised the ease of access and COVID-safety of virtual appointments (almost exclusively phone). Some felt HCPS listened better and dedicated more time for discussion than with face-to-face appointments before the pandemic. Having family present at consultation for support was seen as positive.

SUS recognized that the need for examination and scanning necessitated a face-to-face encounter. Some felt that follow-up was better delivered virtually and first appointments face to face, in order to build a rapport with the clinical team. SUS liked the flexibility of direct access to clinical specialist nurses who escalated questions to HCPS if required. Frustrations with phone appointments included the perception of the HCPS rushing through the conversations, or conversations being purely transactional.

In the future many SUS wish a blend of face to face and virtual with their own preference being the determining factor. SUS called for more video consultations instead of phone appointments. It was highlighted that the virtual clinics needed to be properly organized, and timing of consultations should be honored. There was a recognition that virtual appointments were a pandemic necessity but several women wanted to return fully to face-to-face appointments, stating a better quality of consultation.

HCPS gave feedback on fertility, endometriosis, colposcopy, oncology and general gynecology clinics, some of them had been converted to 'one stop clinics', with co located scanning. New one stop clinics were perceived as efficient and worthy of keeping.

Given that surgical procedures were drastically reduced (including cancer surgery) consultations shifted towards joint decision making and emphasizing conservative approaches, or undergoing procedures in the ambulatory setting (hysteroscopy).

Referrals from family doctors were reported to be vetted more thoroughly than pre-pandemic, avoiding unnecessary hospital appointments and with consultants advising family doctors on treatment in the community. Many HCPS voiced their frustration that the outpatient service during the pandemic did not run well, due to lack of administrative input in a service that was rapidly

transforming. The lack of video appointments was criticized. The few HCPS who had access to video consultation systems felt they worked well and were worth keeping. For selected scenarios, such as communication of normal results, phone clinics were also seen as acceptable post-COVID.

HCPS acknowledged that virtual clinics were not shorter than face-to-face visits, since documentation and dictation of letters were still required. Some patients had to be contacted several times. Using the available paper-based systems, information leaflets and prescriptions had to be posted out.

The benefits HCPs cited for virtual appointments included enabling patients contact despite self-isolation, vulnerability to COVID 19 infection and locking down in places remote to the hospitals. One HCP felt strongly that patient choice for face-to-face appointments should remain irrespective of need for examination.

DISCUSSION

During the pandemic telemedicine was practiced less commonly in gynecology than in other specialties (9) which may be due to the frequent need for physical assessment. A recent systematic review (10) reported that in selected settings (abortion care, urogynecology, postoperative care) telemedicine resulted in similarly favorable clinical outcomes compared to face-to-face clinics, but general gynecology clinics were not included.

A postal survey across gynecology specialties of 504 patients showed high satisfaction scores on telephone consultations during the pandemic on 'convenience', 'effectiveness' and 'equivalent care', similar to our findings. Feedback on phone clinics was best for menopause, fertility clinics and endometriosis follow-up and worst for general gynaecology and gynaecology—oncology clinics (11). In a content-analysis of video consultations Shaw at al. (12) reported that consultations (Diabetes, Antenatal Diabetes and Cancer Surgery) were slightly shorter and less clinician-dominated in face-to-face consultations, in keeping with our survey, but apart from technology-related communications such as internet issues the "kinds of talk" were broadly similar. An RCT in urogynecology comparing face to face with telephone clinics revealed cost savings, despite a higher rate of follow up appointments, and less embarrassment sharing intimate issues in the telephone group (13). This study also demonstrated a successful incorporation of pre-clinic questionnaires.

Conversely, in a mixed methods UK study looking at rheumatology clinics between April 2021 and July 2021 patients and clinicians rated telemedicine worse than face-to-face consultations in almost all categories, apart from convenience. Building trusting medical relationships and assessment accuracy were great concerns (93% of clinicians and 86% of patients rated telemedicine as worse

than face-to-face for assessment accuracy). Telemedicine was perceived to have increased misdiagnoses, inequalities and barriers to accessing care (14).

It is well known that poverty and social exclusion overlap with poor overall health (15) even in the UK where healthcare is free at the point of access. Obstacles to accessing phone and video appointments for women in poverty include language barriers, either because English is not the first language or SUS may not be able to verbalize their complaints well, access to phone/video technology, lack of privacy due to domestic overcrowding and lack of phone ownership (16) .Other important obstacles are connectivity and access to WIFI broadband (17), lack of education and engagement (16). Given the present survey was performed online and through a patient charity it is possible that there was bias against the digitally excluded. Despite the fact that many women who use gynecology services are from the generation of digital natives, acceptability of mobile phone applications remains low among women from deprived areas (17).

Whereas accessibility issues may be overcome by providing community hubs to access virtual appointments and digital education (18), lack of engagement is more difficult to overcome. The health foundation (19) recommends future strategies to be co-produced with those who have lived experience of digital exclusion in order to offer tailored approaches for meeting the needs of different groups. One of these approaches may include choice; the modality of appointments can be negotiated between health care provider and service user, within the boundaries of availability. Greenhalgh (21) states that if the consultation is narrowly transactional this results in inefficiency and exacerbation of unfairness and calls for diversity of provision (required co-design) digital access support, provision of non-digital alternatives (7).

Moving forward, telemedicine needs to become a natural part of the workflow, where appropriate, but such situations are a fraction of the overall clinic workload. In order to achieve this, specialty-specific evidence-based guidance is required on the circumstances in which modality is recommended, along with adequate staff training and support. In the UK, initial guidance has been drawn up ref (20), but this is mainly driven by expert opinion. Appointments require pre-screening, and patient choice, lack of electronic access and safeguarding concerns call for face to face appointments.

During the height of the pandemic, the senior doctors in the authors' hospital first suggested to screen patient letters prior to clinic to determine which patients required face to face or phone clinics; some clinicians suggested mandatory face to face for the first appointment, but most proceeded with phone appointments as a default and arranged face to face after doing a phone call

first, if required, for instance to carry out a pelvic examination, or when barriers to communication over the phone were identified.

The authors believe that there are inherent difficulties to phone appointments. It can be challenging to work out what 'is going on' due to the lack of facial expressions or other non-verbal cues, yet these form a large part of communication. It can be challenging to pick up the global health status of the patient, as is described in the term 'end of bed' impression, including body mass index and mental state. Particular challenges are patients who do not verbalize their concerns appropriately, which can be due to poor mental health, bereavement, language barriers, lack of privacy or the ability to put complex concerns in words. Although digital inclusion has been identified as an important domain in successful delivery of telemedicine (7), it is not yet known if video appointments in secondary care can compensate for some of these issues and we plan further work to consider this. Particularly vulnerable patients (experiencing domestic abuse, poor mental health) were more difficult to identify and signpost to the appropriate services.

On the other hand, on occasions, the authors felt that phone was easier than face to face, possibly due to the removal of unconscious (implicit) bias prevalent in doctor patient relationships (reviewed by Hall et. al (21)) and stronger focus on listening to the spoken word without visual distractions.

Before the pandemic the authors' hospital worked with a team of resident translators/patient advocates to cater for the many non-English speakers. In phone and video consultations this it is technically possible to include translators, but this requires technical setup training and funding.

Particularly in gynecology it is important to build a rapport when talking about private matters. Virtual consultations are of better quality when the participants know each other already (7). Some of the drawbacks of phone appointments may be overcome by video calls, which are still underutilized. 'Attend Anywhere', a platform for video consultations rather than phone only, has been funded by the National Health Service in England but other secure platforms remain acceptable. A comparative study reported that face-to-face appointments scored higher in quality of communication. Video appointments were popular with patients, despite technical problems (22). Moving forward, patients ought to be given the choice of type of attendance and there should be clear inclusion and exclusion criteria for virtual appointments specific to specialty, at local level but also backed up by national guidance.

In addition, robust evaluation of outcomes is required (both clinician and patient experience) after widespread introduction of virtual appointments. At the time of writing introduction is patchy but

outcomes evaluations should be planned for now. Lessons learnt need to feed into future planning as we enter recovery. It would be rewarding to study how attitudes (both staff and patient) towards virtual appointments have changed over the course of the pandemic. Based on the pandemic experience we would like to highlight two frameworks developed for the application of telemedicine. A theoretical framework, for "planning and evaluating of remote consultation services", based on research findings (7) and a practical one, based on expert opinion (23). Exclusion criteria for virtual clinics include the SU not being happy with remote consultations, lack of access to phone/internet and safeguarding concerns.

The authors are calling for a post hoc co-development piece of research. It is particularly challenging to invite 'under-served' women into co development, given the experience that focus groups are often made up by educated white middle-class women, who can spare extra time in the evenings and believe that their input can make a difference (17). One option would be to train lay researchers to carry out interviews in underserved communities to understand obstacles and facilitators of virtual appointments (24). Another aspect would be to analyze phone, video and face to face consultations across gynecology services and compare the strengths and weaknesses of each modality.

About the authors

Both clinical authors work in a large London teaching hospital that serves a diverse inner-city community of predominantly Bangladeshi patients. They run an endometriosis service, ambulatory hysteroscopy and recurrent miscarriage service. The third author is an academic and a methodologist, currently she is studying the impact of the COVID19 pandemic on those affected by chronic conditions and disabilities, migrants and other ethnic minorities.

Authorship

Elizabeth Ball and Rehan Khan co-wrote this paper. EB provided the draft and RK had editorial input. No funding was received. The authors have no conflict of interest to declare.

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Conflict of interest

EB, CR and RK have no conflicts of interest to declare.

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