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Short research communication

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Abstract

Background: Although underdeveloped in Iraq, telehealth was one tool used to continue health service provision during the COVID-19 pandemic.

Aim: To assess women's experiences and satisfaction with gynaecological and obstetric telehealth services in Iraq during the COVID-19 pandemic.

Methods: Free telehealth services were provided by 4 obstetrician-gynaecologists associated with private clinics in 2020–2021. All patients who accessed the services between June 2020 and February 2021 were invited to complete a post-consultation survey on their experience and satisfaction with services. Results were analysed using descriptive statistics and logistic regression conducted using SPSS version 25.

Results: A total of 151 (30.2%) women responded to the survey. Two-thirds (61.6%) of them were between the ages of 19 and 30 years. Some 50.3% learned about telehealth through social media. Gynaecological consultations accounted for 48.3% of all visits, obstetric consultations 42.4% and consultations for both gynaecological and obstetric care 9.3%. Overall, 57.0% of the women were satisfied, 7.9% were dissatisfied and 35.1% neither satisfied nor dissatisfied. Some 82.7 % intended to continue using telehealth after the pandemic.

Conclusion: The high-level satisfaction of women with telehealth for gynaecological and obstetric services during the COVID-19 pandemic suggests that telehealth may be a valuable complement to in-person services. Strengthening telehealth systems could be a promising strategy for increasing access to, and efficiency of, select health services beyond the pandemic.

Keywords: telehealth, telemedicine, COVID-19, antenatal care, women, gynaecology, obstetrics, Iraq

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Introduction

COVID-19 has impacted healthcare worldwide. In a survey of 105 countries, more than 50% reported disruptions to antenatal care and other essential services (1). The lockdowns, coupled with a shift from routine preventative care to COVID-19 case management, resulted in de-prioritization of services for pregnant women and those requiring gynaecological services (2).

Telehealth is the use of technology to provide diagnosis, treatment, monitoring, and counselling or to manage appointment without in-person interaction (3). Evidence on telehealth before the pandemic is variable; 2 systematic reviews associated telehealth with improvements in obstetric outcomes, perinatal smoking cessation, continuation of breastfeeding, monitoring of high-risk pregnancies, and early access to medical abortion services, but also challenges in low-resource settings (4,5).

Since the onset of the pandemic, however, telehealth has been recognized as a strategy to reduce exposure to virus infection and transmission by allowing physicians and patients to interact despite movement restrictions and distancing requirements (6,7). WHO and UNFPA produced guidance that included the use of telehealth to ensure continuity of antenatal and postnatal care (8,9). Although the adoption, benefits and challenges of telehealth services varied across countries, there are many examples of how telehealth helped reduce the impact of COVID-19 on strained health systems by replacing in-person services for a wide range of health care seekers, including women requiring gynaecological and obstetric services (10-12).

Iraq has experienced decades of protracted crises, hindering the quality and coverage of health services even before the COVID-19 pandemic. In 2018, approximately 68% of pregnant women attended at least 4 antenatal care visits with a skilled provider (13). As existing deficiencies worsened and routine service provision interrupted by the pandemic, there was a need for creative solutions to provide access to essential healthcare services for women.

Telehealth in Iraq is under-developed. Although mHealth trials and feasibility studies conducted in 2015–2016 showed promise (14-16), no telehealth solution has been sustainably integrated into the national health system. There is no national platform or guideline for telehealth, and the country has many of the same structural barriers as other countries that have faced challenges in taking telehealth solutions to scale. However, several small-scale initiatives were established during the early days of the pandemic. This study aimed to document these initiatives and assess the satisfaction of women with one of the telehealth services established for obstetrics and gynaecology patients in Baghdad, the capital city of Iraq.

Methods

This was a post-consultation survey of women who used free telehealth services provided by 4 Iraqi and Arab Board-certified obstetricians and gynaecologists during the first year of the COVID-19 pandemic. In June 2020, WhatsApp accounts were established for each of the 4 specialists through a platform set up by the University of Baghdad and announcements about the service circulated through private clinics and the social media pages of the participating clinicians. Interested women could send audio, video or text messages at any time of day and receive response from the obstetrician-gynaecologist they contacted by the next evening (responses were planned to be sent after 5 pm). Most interactions were asynchronous, although some resulted in interactive communication or referrals for further facility-based care. Following each consultation, clients received an anonymous post-consultation feedback questionnaire, which was developed in English using Google forms and translated into Arabic. It consisted of 5 sections:

Personal information: patient demographics; obstetric history; and residential, education and work status.

Patient motivation: how women got information about the service, reason for using telehealth and if they had previously met the specialist.

Patient experience: timing of consultation and response, length and number of calls required to respond to and resolve their problems, and the mode of communication with the specialist.

Patient satisfaction: overall satisfaction with services received on a scale of 1 (very dissatisfied) to 5 (very satisfied), ability to communicate with the specialist and comprehend instructions and whether the telehealth services resolved their concerns.

Patient attitude: if patients considered the service valuable, whether they would use it again or suggest it to others and whether they preferred physical consultation over telehealth.

The internal consistency for each construct was measured using Cronbach's Alpha, with scores > 0.9.

The questionnaire was pretested for face validity among 20 clients and then revised. It was distributed to all women that accessed services between June 2020 and February 2021 (a total of 500 women).

The Scientific Affairs Unit and Medical Ethics Committee at Al Kindy College of Medicine, University of Baghdad approved the study protocol (reference 147/February 3, 2020). Participants provided informed consent by checking a box affirming that they voluntarily agreed to participate in the survey, and that they had been informed that some of the data would be used for a scientific paper. Descriptive statistics and logistic regression analyses were conducted using SPSS version 25.

Results

Of the 500 women invited to participate, 151 (30.2%) completed the questionnaire (Table 1). Nearly two-thirds of them were adults aged 19–30 years. The majority were multipara; only 9.9% reported no history of pregnancy and 43.7% reported having had at least one miscarriage in the past. More than half of the women had a bachelor's degree and 86.9% were not employed at the time of seeking care.

Majority of the women (94.0%) received information about the telehealth service through social media or announcements at the clinic, and most (79.5%) reported having a relationship with the provider previously. The most common reason for using telehealth was the fear of contracting COVID-19 (52.3%), followed by availability of services (27.8%), and restrictions including clinic closures and/or lockdown (13.2%).

The respondents included a fairly even distribution of gynaecological and obstetric patients. Some 48.3% (n=73) were gynaecological patients, 42.3% (n=64) were obstetric patients, and 9.3% (n=14) were both obstetric and gynaecological patients (Figure 1). Routine antenatal care was the most common reason for obstetric consultation (39.7%), while menstrual disorder was the most common reason for gynaecological consultation (28.7%). Obstetric cases included complications during pregnancy, in some cases resulting in emergency and referral for lifesaving care (e.g. laparotomy for ruptured ectopic pregnancy or emergency caesarean section). Other gynaecological cases included ovarian cyst follow-up and genital warts.

More than two-thirds of the women approached the consultant after 8.00 pm and received a

response immediately or fairly quickly. Majority of the cases were resolved within 10 minutes. Some 75.5% of the patients preferred exchanging text messages with the consultant through internet-based apps than making telephone calls.

Fifty-seven percent of the women were satisfied with the telehealth services they received, while 7.94% (n=12) were unsatisfied (Figure 2). In relation to the demographic and gynaecological parameters of the women, no significant difference was observed between patient characteristics and overall satisfaction (Table 2).
Women who were dissatisfied with the services had concerns about understanding the consultant's instructions (n=5, 41.6%) and the quality of follow-up (n=6, 50.0%), or reported that the consultation did not resolve their problems (n=7, 58.3%). When the clinical data of these patients were reviewed, 4 (33.3%) of them had threatened miscarriage that ultimately resulted in pregnancy loss.

Although a substantial proportion of the respondents reported that they preferred in-person consultations to telehealth, 81.5% reported that the service was beneficial and 75.5% expressed willingness to continue using telehealth after the pandemic. In fact, 92.8% reported that they would use telehealth services if provided by the Ministry of Health at primary healthcare centres or hospitals.

Discussion

Understanding patient experiences and preferences is crucial for determining whether telehealth services established over the last 3 years should be continued, modified, adapted, or expanded. One of the primary reasons patients in our study used telehealth services was to mitigate the risks of contracting COVID-19, which is consistent with earlier research (8). However, more than one-third of the patients were motivated by the availability of telehealth services. Majority of the women reported patient-doctor rapport and a previous in-person visit, but that was not a limitation for almost 20% of patients who had never met the doctor. These findings may indicate patients' readiness to use telehealth when physical access to services is limited.

An overall positive attitude toward telehealth was observed in this study, in agreement with previous studies that assessed the feasibility of a text messaging intervention to provide health information to pregnant women and encourage antenatal care (14,15,16). Majority of the patients found telehealth useful and they were happy to continue using the service during the pandemic and afterward.

Evaluations of antenatal and postnatal telehealth services introduced in other Asian countries during the pandemic identified stakeholder engagement, interagency and government collaboration on management of telehealth platforms, and dedicated training and resources for implementation among enablers of success (11,17). A review of the experiences of neighbouring country, as well as other telehealth initiatives introduced across health service areas and client groups in Iraq, could help identify where investing in telehealth infrastructure and systems could yield the most benefits.

The telehealth intervention and the study had several limitations. First, the intervention only targeted patients in Baghdad, the capital city. Although some women in other governorates accessed the platform, the network was not designed to reach this broader catchment area and thus cannot serve as an indication of feasibility or acceptability to populations outside Baghdad. Second, most consultations were drop-off messages, limiting our ability to assess the extent to which rapport and trust can be established through interactive telehealth conversations and real-time care. Selection and respondent biases are also risks; the experiences of women who declined to complete the survey may have differed significantly from those that responded. The provision of telehealth services for free may have also caused a bias in women's responses to the questions. Recent literature suggests the need for further evaluation of telehealth accessibility and quality before committing to sustain or scale-up services introduced during the pandemic (17).

Additional research is needed to explore the feasibility, acceptability and effectiveness of additional telehealth methods (e.g. interactive audio or video consultations versus text and voice messaging) and to conduct a more systematic analysis of findings for different types of obstetric and gynaecological cases. Future studies should consider more robust research designs, with adequate sample sizes to measure differences in quality and experience of care before and after introduction of telehealth services. Research across multiple regions of Iraq with different traditional and religious contexts that influence healthcare seeking of women of reproductive age should also be considered to truly assess the prospect of telehealth for expanding access or maintaining health services during future crises.

Conclusion

This study contributes to a growing body of evidence on the interests in telehealth service provision and utilization in circumstances where physical clinic visit is a challenge. Feedback from women who received obstetric and gynaecological consultations via telehealth established in Baghdad, Iraq, during the first year of the COVID-19 pandemic was largely positive. Findings suggest that strengthening systems for telehealth could be a promising strategy for increasing access to, and efficiency of, select health services, and that social media platforms can be effective for promoting new models of care. Larger scale review of how telehealth capacity and interests in Iraq have changed since 2020 could identify opportunities for strengthening public

and private sector services for women of reproductive age, including, but not limited to, new models of care during pregnancy.

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Competing interests: None declared.

Satisfaction des femmes à l'égard des services de télésanté pendant la pandémie de COVID-19 : la voie vers une mise en œuvre plus large

Résumé

Contexte : Bien que peu développée en Iraq, la télésanté a constitué l'un des outils permettant de maintenir la prestation de services de santé pendant la pandémie de COVID-19.

Objectif : Évaluer les expériences et la satisfaction des femmes concernant les services de télésanté en soins gynécologiques et obstétricaux en Iraq pendant la pandémie de COVID-19.

Méthodes : Quatre gynécologues-obstétriciens associés à des centres de soins de santé privés ont fourni des services de télésanté gratuits entre 2020 et 2021. Tous les patients ayant bénéficié de ces services entre juin 2020 et février 2021 ont été invités à remplir une enquête post-consultation sur leur expérience et leur satisfaction. Les résultats ont été analysés à l'aide de statistiques descriptives et d'une régression logistique réalisée à l'aide du logiciel SPSS version 25.

Résultats : Au total, 151 femmes (30,2 %) ont répondu à l'enquête. Deux tiers (61,6 %) d'entre elles avaient entre 19 et 30 ans. Près de 50,3 % des répondantes ont découvert la télésanté par le biais des médias sociaux. Les consultations gynécologiques représentaient 48,3 % de l'ensemble des demandes, les consultations obstétricales en constituaient 42,4 % et les consultations combinant ces deux types de soins en représentaient 9,3 %. Dans l'ensemble, 57,0 % des femmes interrogées étaient satisfaites, 7,9 % ne l'étaient pas et 35,1 % n'étaient ni satisfaites ni insatisfaites. Près de 82,7 % d'entre elles avaient l'intention de continuer à utiliser ces services après la pandémie.

Conclusion : Le niveau élevé de satisfaction des femmes à l'égard de la télésanté pour les soins gynécologiques et obstétricaux pendant la pandémie de COVID-19 suggère que cette pratique pourrait constituer un complément précieux aux soins en présentiel. L'amélioration des systèmes de télésanté pourrait devenir une stratégie prometteuse afin de favoriser l'accès à certains services de santé et d'en augmenter l'efficacité au-delà de la pandémie.

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خدمات أمراض النساء والتوليد خلال جائحة كوفيد -19 إلى أن توفير الخدمات الصحية عن بُعد قد يكون أداة قيمة مكملة للخدمات المباشرة . وقد يكون تعزيز نظم توفير الخدمات الصحية عن بُعد استراتيجية واعدة لزيادة فرص الحصول على خدمات صحية معينة بعد الجائحة وتعزيز كفاءتها .

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