

# Impact of telemedicine on antenatal care: An insight into better India

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## INTRODUCTION

- Adequate antenatal care is imperative for delivery of a healthy baby to healthy mother and to lessen maternal and neonatal morbidity and mortality.
- A wide range of obstetrical services like consultation with maternal and fetal medicine doctors, genetic consultation, surveillance of hypertension and diabetes mellitus etc are offered by several tertiary care hospitals through telemedicine.
- In the postpartum period also, telemedicine has been used to enable postpartum follow up visits and access to lactation consultations.
- Telemedicine (TM) emergence has been profound in using technology to address the problems of obstetrics from remote and rural places especially in low risk pregnancy .
- Antenatal and postnatal care is indispensable for timely identification of danger and management both before and after delivery.

## OBJECTIVE

- Telemedicine is an emerging branch in India and the corona pandemic has rushed the telemedicine use in remote societies . Through this study we made an effort to:
1. Assess the satisfaction level and concerns of antenatal women who availed the telemedicine facility.
  2. Facilitate improved access to antenatal and postnatal care, specially the low risk pregnancies through telemedicine for patients from remote areas that do not have availability of specialists.

## METHODOLOGY

**Study design:** Cross sectional exploratory research  
**Study population:** Antenatal patients who availed the telemedicine services of AIIMS, Kalyani ,India.  
**Method:** Primary data was collected by means of telephonic survey of all the antenatal women who used telemedicine services of AIIMS, Kalyani based on a preformed questionnaire. A total of 21 questions were included in the questionnaire and included both close and open ended questions.  
Data for satisfaction with the telemedicine consultation was collected and analyzed using the IBM SPSS statistics (version 23).  
**Statistical analysis:** The categorical data were expressed in frequency and percentage, while the continuous data were presented by the measures of central tendency and dispersion. Statistical means of those intending to opt for telemedicine in the future or not were compared through t-test. Determinants of future use of telemedicine were assessed through binary logistic regression

## RESULTS

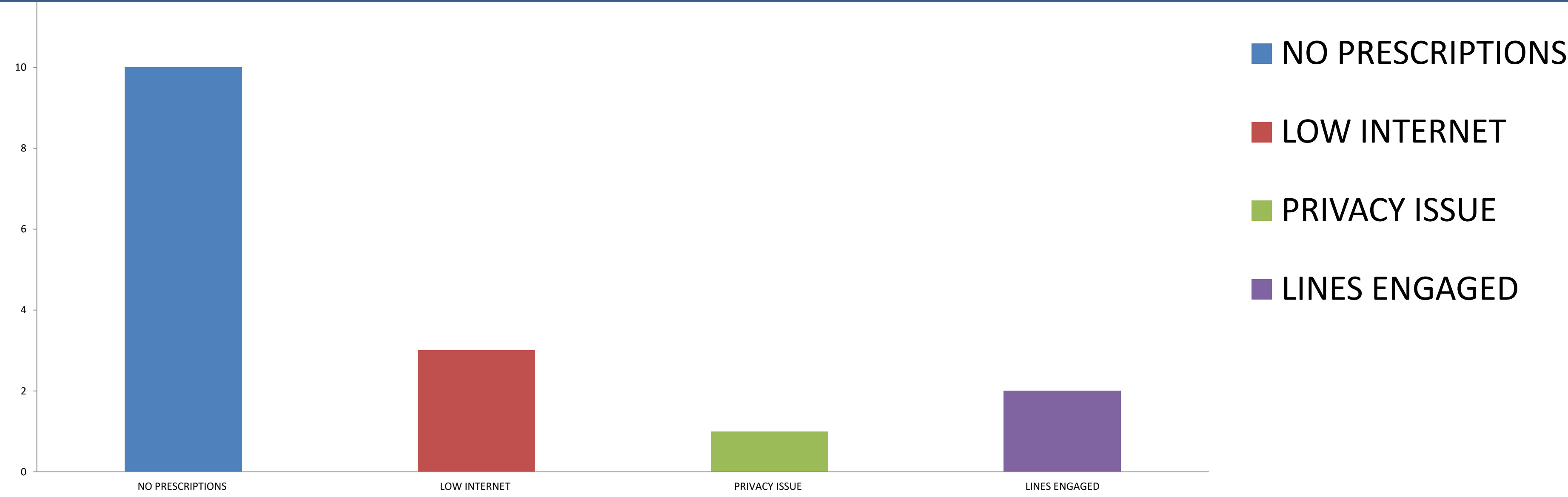
- 80 antenatal patients gave consent to participate in the study. Average gestational age of respondents was 23.95 weeks.
- 71 out of 80 patients felt that the appointment was made within reasonable time.
- Only 12 patients [15.3%] had waiting time greater than 10 minutes. Average waiting time was 6.93 minutes.
- 56.3 % respondents felt that the person who attended their call was very cooperative.
- 86.3% respondents strongly agreed that the consultant was able to understand their health issue completely.
- 80 % of the respondents said that they would like to continue using telemedicine in future.
- There was significant difference between those preferring to use telemedicine in future and those not preferring telemedicine in future.
- Poor internet facility and privacy were prominent reasons for not opting for telemedicine in the future by some respondents.

### Willingness to use of telemedicine in future using Binary logistic regression

| Variables                   | Odds ratio | 95% confidence interval |       | P Value |
|-----------------------------|------------|-------------------------|-------|---------|
|                             |            | Lower                   | Upper |         |
| Ease of getting appointment | 1.98       | 0.81                    | 4.85  | 0.13    |
| Behaviour of the staff      | 2.02       | 0.61                    | 6.64  | 0.24    |
| Patient satisfaction        | 2.94       | 1.03                    | 8.43  | 0.04    |

Every one unit increase in the ease of getting appointment ,behavior of the staff and patient satisfaction increases the patient likelihood of preferring to use telemedicine in future by 1.98,2.02 and 2.94 times respectively.

### Reasons for not opting telemedicine in future



## DISCUSSION

- According to a study done in a tertiary care hospital in North India, a triage over teleconsultation may avoid a hospital visit in 20.4% of the pregnant women without any maternal or fetal adverse outcomes. The use of telemedicine in women with diabetes had resulted in reduced need for outpatient clinical visits with similar pregnancy outcomes.
- The average waiting time in our study was 6.93 minutes. Waiting time was much shorter in comparison to physical mode of consultation.About 86.3 % patients felt that consultants understood their health issue easily on virtual platform also.
- 80 % women in our study rated their experience with telemedicine to be as good as physical consultation In a similar study done at AIIMS Gorakhpur which reported that 62.8% respondents were willing to continue using telemedicine even after start of physical OPD.
- Our findings are in line with previous study in USA where 95 % respondents rated telehealth as better than or just as good as a traditional visit while only 1% rated it worst.

## CONCLUSION

- High satisfaction of the patient with the TM means that it can be adopted and incorporated into routine patient care especially in low resource countries like India.
- It can be used to provide services to pregnant women without exposing them to infections.
- Successful telemedicine program for obstetric care would optimize convenience and ease for patients to get appointment and universal access to every individual.

## REFERENCES

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