

# Patient Satisfaction While Receiving High-risk Obstetrics Care via Telemedicine During SARS-COV-2 Pandemic

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## BACKGROUND AND INTRODUCTION

- The SARS-COV-2 pandemic has changed the way healthcare providers deliver care to patients.
- Pregnant women have a higher risk of developing complications, such as SARS-COV-2.
- As the use of telemedicine for prenatal care increases, the impact of telehealth on underserved patients is unclear.

**Primary Aim:** To understand how providing telemedicine care during SARS-COV-2 has affected patient satisfaction and overall patient experience in pregnant women receiving care in New Mexico.

## METHODS

- Pregnant women (n=152) were recruited during their obstetrics appointment between April and December 2020.
- Inclusion criteria consisted of patients who received mostly high-risk obstetrical care through telemedicine after SARS-COV-2 policies went into effect.
- Interested patients were consented and given a patient satisfaction and demographic questionnaire either in person at their appointment or via telephone interviews conducted at a later date.
- Questionnaires and interviews were conducted in both English and Spanish. Participant responses were graded on a 5-point Likert scale based on a validated tool.

**TABLE 1: Characteristics of the Study Population**

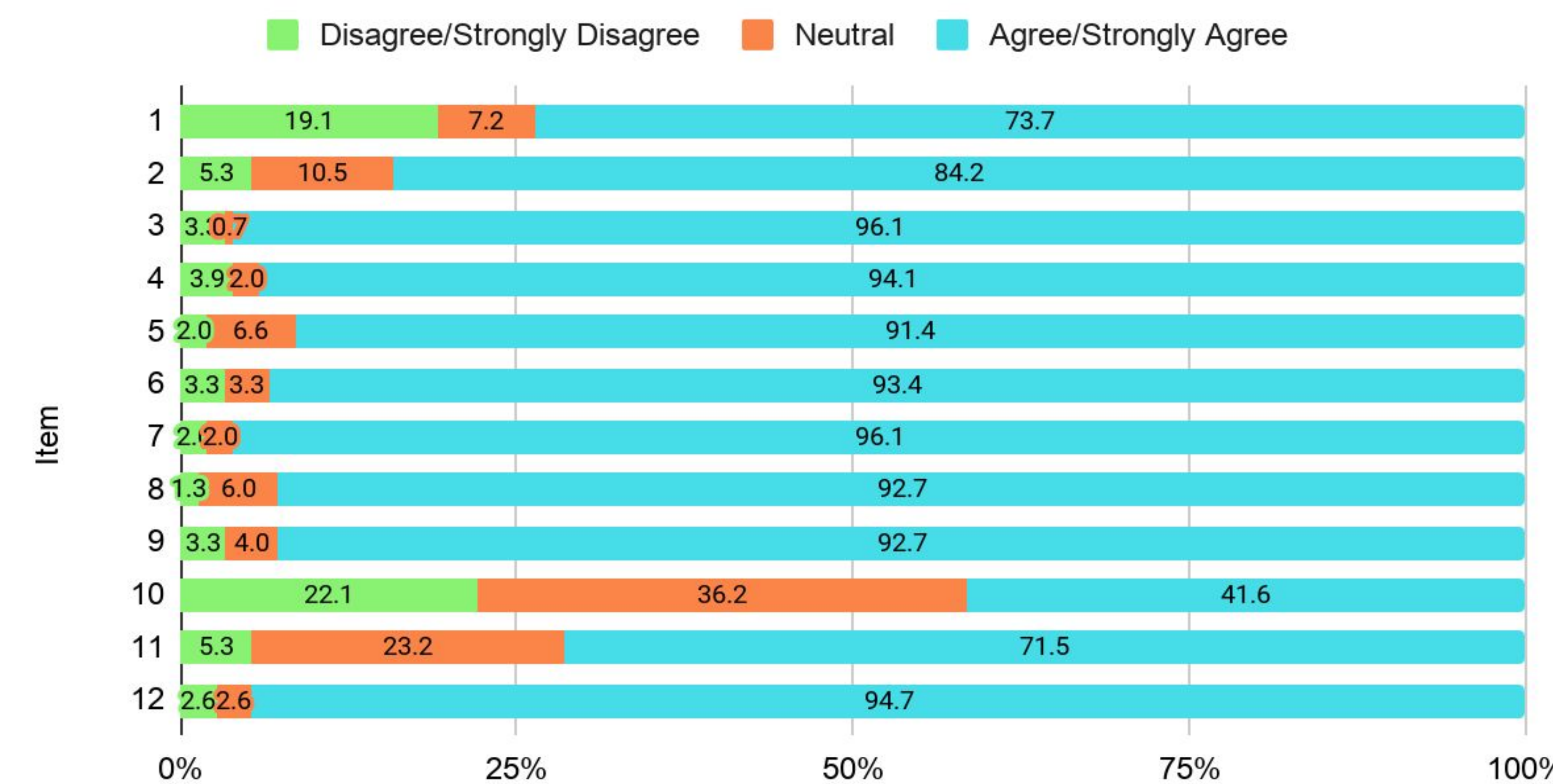
Demographic	N (%)	Demographic	N (%)
<b>Race/Ethnicity</b>		<b>Residence</b>	
NA/AI	108 (72.0)	Urban	72 (49.3)
Hispanic/Latino	35 (23.3)	Rural	74 (50.7)
White Non-Hispanic	7 (4.7)	<b>Annual Household Income</b>	
<b>Education Level</b>		<\$25,000	89 (65.9)
High school or less	61 (40.4)	>\$25,000	46 (34.1)
Some college or more	89 (59.6)	<b>Work Outside Home</b>	
<b>Employment status</b>		Yes	81 (53.6)
Employed	56 (37.1)	No	70 (46.4)
Unemployed	95 (62.9)	<b>Continuous Variables</b>	<b>Mean (SD)</b>
<b>Insurance Status</b>		Age	31 (6)
Always Insured	92 (60.9)	Household Size	4 (2)
Not Always Insured	59 (39.1)	Pregnant with (#) child	3 (2)

**Table 2: Telemedicine Questionnaire**

Item	Question
1	My telemedicine visit started at the scheduled time.
2	If any technical difficulties occurred, they were resolved to my satisfaction.
3	Communication with my provider was clear during my visit.
4	I consider this method of care to be adequate and safe considering the current Coronavirus pandemic.
5	I feel comfortable using modern technology to access telemedicine care.
6	My experience with the provider during my telemedicine visit felt personal and met my needs.
7	My visit was private enough to discuss personal issues.
8	I felt I could safely talk about my physical and emotional problems in my telemedicine visit.
9	I found telemedicine to be useful and helpful during my pregnancy.
10	I prefer a telemedicine visit over a traditional in-person visit.
11	I would consider receiving telemedicine care in the future.
12	Overall, I am satisfied with the quality of service being provided via telemedicine.

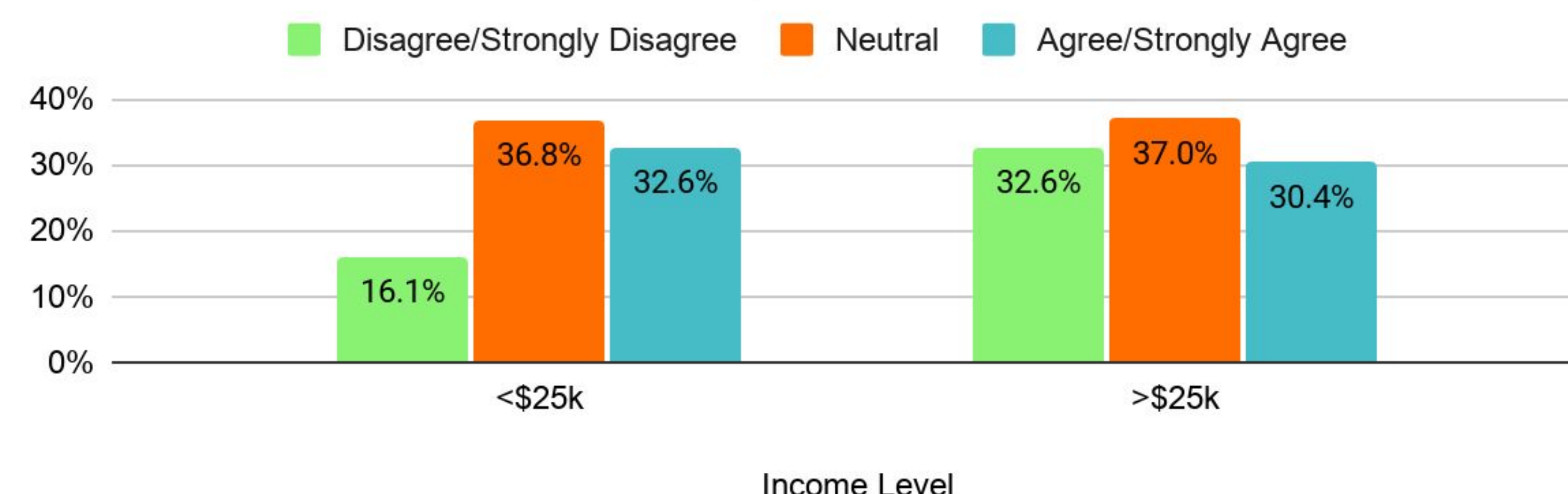
**Figure 1: Patient Satisfaction with Telemedicine**

### Questionnaire Responses



**Figure 2: Economic Status and Telemedicine Preference**

### Economic Status vs. Q10 Responses



## RESULTS

- Our study population consisted of 152 adult women: 72% Indigenous patients (N=108), 23% Hispanic/Latino patients (N=35), and 5% Caucasian patients (N=7).
- Based on Primary RUCA Codes, study participants' zip code demographics were classified as Urban and Rural with 49.32% (N=72) and 50.68% (N=74) respectively.
- When asked about satisfaction with the quality of service provided during the appointment, 54% (N=81) agreed, while 41% (N=62) strongly agreed. A total of 95% had a positive response towards the telemedicine services provided.
- A total of 93% found telemedicine to be useful and helpful during pregnancy with 39% (N=59) strongly agreeing and another 54% (N = 81) of patients agreeing.
- Less than 1% (N=1) strongly disagreed when asked about satisfaction with the quality of service provided via telemedicine.
- A total of 92% felt they they could safely talk about their physical and emotional issues during the virtual visit with 38% (N=58) strongly agreeing and another 54% (N=82) agreeing.
- Lower income status correlates with preference to a telemedicine visit over an in-person visit, possibly given the time convenience.

## DISCUSSION AND FUTURE DIRECTIONS

- Telemedicine has shown high satisfaction (95%), and can help deliver quality healthcare of high risk obstetric patients in rural and urban underserved areas.
- Telemedicine was found to be useful and helpful during pregnancy (93%). Therefore, telemedicine can complement in-person care.
- Considering the demographic data, telemedicine proved to be beneficial and convenient for those without proper accessibility to healthcare.

**Future directions:** The positive outlook on telemedicine and its convenience advocates for telehealth as a viable source of healthcare. Therefore, we should invest in its widespread application. Future studies should investigate the large scale use of telemedicine and explore its limitations on the quality of service it provides.

## ACKNOWLEDGEMENTS

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# **Patient satisfaction while receiving high risk Obstetrics care via telemedicine during SARS-COV-2 Pandemic**

**Keywords:** telemedicine, covid-19, high risk pregnancy, rural and underserved population, patient satisfaction

**Aim:** The SARS- COV-2 pandemic has drastically changed the way healthcare providers deliver care to both obstetric and non-obstetric patients. Pregnant women have a higher risk of developing complications from viral infections, such as SARS-COV-2. As the use of telemedicine for prenatal care increases, the impact of telehealth on underserved patients is unclear. The primary aim of our study is to understand how providing telemedicine care during SARS-COV-2 has affected patient satisfaction and overall patient experience in pregnant women receiving care in New Mexico.

**Methods:** This qualitative study was conducted between April 2020 and November 2020. Inclusion criteria consisted primarily of patients referred for a maternal - fetal medicine consult through telemedicine after SARS-COV-2 policies went into effect. Participants were recruited during their appointment. Interested patients were consented and both a patient satisfaction and a demographic questionnaire were given to patients either in person after their appointment or via telephone interviews conducted at a later date. Questionnaires and interviews were conducted in both English and Spanish. The responses were graded on a 5-point Likert scale based on a validated tool.

**Results:** Our study population consisted of 152 adult women: 72% Native American patients (N=108), 23% Hispanic/Latino patients (N=35), and 5% Caucasian patients (N=7). Based on Primary RUCA Codes, study participants' zip code demographics were classified as Urban (49.32%; N= 72 )and Rural ( 50.68% ; N= 74) respectively. For the statement: "Overall I am satisfied with the quality of service being provided via telemedicine " 54% (N=81) agreed, while 41% (N=62) strongly agreed. In another question, 32% (N=49) of patients strongly agreed that the communication between the patient and provider was clear; and another 52% (N=79) agreed to the same question. 38% (N=58) of patients strongly agreed that they could safely talk about their physical and emotional issues during the virtual visit and another 54% (N=82) agreed to the same question. Less than 1% (N=1) strongly disagreed regarding satisfaction with the quality of service provided.

**Conclusion:** Our study has shown that telemedicine can be used to provide high satisfaction and a valuable patient experience that complements prenatal care in underserved rural and urban areas. The results also suggest that a telemedicine visit can still provide a safe and comfortable environment for addressing a patient's personal issues. Even after the SARS-COV-2 pandemic subsides, protocols to provide telemedicine care should be investigated and developed. Quality care can be provided via telemedicine and seems to be a reasonable alternative to providing in-person care.