Adherence to first-trimester medication abortion in telemedicine versus in-person care: a prospective cohort study in Colombia, 2024

We compare adherence to first-trimester medication abortion between in-person and telemedicine users at Profamilia clinics in Colombia. Adherence to medication abortion was defined as following the prescribed timing and administration route by Profamilia's protocol, which aligns with WHO guidelines.[1]

A prospective cohort study was conducted from February to July 2024. Participants included medication abortion users from Profamilia clinics in Bogotá, Medellín, Bucaramanga and Tunja (in-person care) and all telemedicine medication abortion users. Of 961 participants, 375 (39%) accessed in-person care and 586 (61%) used telemedicine. Surveys were conducted after the initial consultation (we measured sociodemographic characteristics, appointment scheduling and care satisfaction) and 21 days later (we asked self-reported medication abortion treatment adherence: administration route and timing).

We included as independent variables modality of care (in-person vs telemedicine) and satisfaction, a proxy for quality of care, defined as rating both appointment scheduling and medical care as 'good' or 'very good'. We descriptively analysed adherence, satisfaction and sociodemographic variables by modality of care, comparing proportions using the χ^2 test. A logistic regression model assessed factors associated with adherence, adjusting for care modality, satisfaction and sociodemographic/gynaecological variables. Results are presented as odds ratios (OR) with 95% confidence intervals (CI).

Sociodemographic differences between modality of care included higher education levels among in-person users (20% vs 11%) and a greater proportion of secondary education in telemedicine users (86% vs 75%; p<0.001). Lower socioeconomic status was more common among telemedicine users (85% vs 78%; p=0.010). Geographically, 33% of telemedicine users and 60% of in-person users lived in major cities (p<0.001). Across both modalities, 95% sought care before 9 weeks of gestation.

We found the adherence was high: 95% took medications within the prescribed timeframe (95% in-person vs 94% telemedicine; p=0.721) and 96% followed the recommended route (93% in-person vs 95% telemedicine; p=0.590). Overall, 91% adhered correctly (93% in-person vs 90% telemedicine; p=0.143). No significant differences were found between care modalities.

Regarding satisfaction, 94% rated appointment scheduling as good/very good (93% in-person vs 95% telemedicine; p=0.721) and 98% rated medical care positively (98% in-person vs 99% telemedicine; p=0.316). Overall, 93% were satisfied (91% in-person vs 94% telemedicine; p=0.076). No significant differences were observed in satisfaction measures. Logistic regression adjusting for satisfaction and sociodemographic variables found no differences in adherence between care modalities. However, we found that, compared with women living in Bogota, those residing in Medellin had lower odds of adhering to the medication abortion regimen (table 1).

Telemedicine is as effective as in-person care in ensuring proper medication use when comprehensive guidance is provided. High adherence rates (95% for timing, 96% for

Table 1 Factors associated with abortion medication adherence, Profamilia, Colombia, 2024 (n=574)

Variables	aOR (95% CI)	P value
Modality of abortion care		
In-person	Ref.	
Telemedicine	0.70 (0.30 to 1.63)	0.405
Satisfaction index		
Not satisfied	Ref.	
Satisfied	2.01 (0.75 to 5.36)	0.163
Age (years)		
18–24	Ref.	
25–34	0.88 (0.45 to 1.70)	0.695
≥35	0.69 (0.23 to 2.03)	0.501
City		
Bogotá	Ref.	
Medellín	**0.29 (0.11 to 0.76)**	**0.012**
Bucaramanga	0.35 (0.09 to 1.31)	0.118
Tunja	5.10 (0.58 to 44.66)	0.141
Others	0.60 (0.21 to 1.72)	0.340
Health insurance		
Subsidised	Ref.	
Contributory	1.26 (0.64 to 2.47)	0.499
Level of education		
Primary school	Ref.	
Secondary school	0.69 (0.08 to 5.80)	0.737
Undergraduate/postgraduate degree	0.56 (0.06 to 5.03)	0.606
Socioeconomic status		
Low (I–II)	Ref.	
Medium/high (III–IV–V)	1.15 (0.50 to 2.63)	0.738
Weeks of gestation		
<9 weeks	Ref.	
≥9 weeks	1.11 (0.37 to 3.34)	0.852

administration route) align with global evidence supporting the role of telemedicine in maintaining safe abortion care, particularly where in-person access is limited.[2 3]

User satisfaction was consistently high, with 98–99% rating care positively. Given the link between satisfaction and adherence,[4] these findings reinforce telemedicine as a viable alternative. Sociodemographic differences between users of telemedicine and in-person care highlight the potential of telemedicine to expand access, particularly for those outside major cities and with lower educational attainment. These findings support the role of telemedicine in improving equity in abortion care by reaching underserved populations.

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