

# MATERNAL ANXIETY AND ANTENATAL ATTACHMENT IN WOMEN WITH HISTORY OF PREVIOUS PREGNANCY LOSS

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## OBJECTIVE

Increased maternal anxiety and decreased antenatal attachment are two adversities characterizing pregnant women with prior pregnancy loss, both related to a significant increase in adverse pregnancy and maternal outcomes. Routine home-ultrasound is a simple device which may aid in maternal reassurance of the fetal well-being. In this study we aimed to assess the rate of maternal anxiety and antenatal attachment in women with a history of previous pregnancy loss by complementing routine prenatal care with twice-a-week telemedicine visits using home-ultrasound



## METHODS

In this randomized controlled trial women with history of previous pregnancy loss (greater than 20 weeks) were recruited early in their subsequent pregnancy in our high-risk clinic. According to the 1:1 randomization key patients were recruited either to the control group and received routine prenatal high-risk care vs. the study group which received additional twice-a-week telemedicine visits with a maternal-fetal medicine specialist. The telemedicine visit included a home-ultrasound scan for fetal pulse, movements, and amniotic fluid for maternal reassurance. The scan was performed by the patient herself using Pulsenmore device with real-time guidance by the physician. Maternal anxiety was evaluated by the validated State-Trait Anxiety Inventory Scale (STAI-S) and maternal attachment was evaluated by validated Maternal Antenatal Attachment Scale (MAAS-2) at 3 time periods during pregnancy. The primary outcome was the STAI-S score at the last prenatal visit. Power analysis required 40 patients to demonstrate a 20% difference in the primary outcome.

## RESULTS

To date 32 patients completed follow-up, 16 in each group. There were no differences in demographics or pregnancy outcomes. The study group demonstrated lower anxiety levels at the last prenatal visit (STAI  $42.2 \pm 4.7$  vs.  $49.6 \pm 5.8$ ,  $p < 0.001$ ), a higher difference between STAI scores at the first vs. last visit ( $-9.9 \pm 2.7$  vs.  $-7.1 \pm 3.1$ ,  $p = 0.011$ ), and higher MAAS-2 scores ( $50.4 \pm 3.9$  vs.  $47.2 \pm 4.5$ ,  $p = 0.039$ ) at last visit

## CONCLUSION

Routine home-ultrasound telemedicine visits can decrease maternal anxiety and improve maternal attachment in women with previous pregnancy loss.