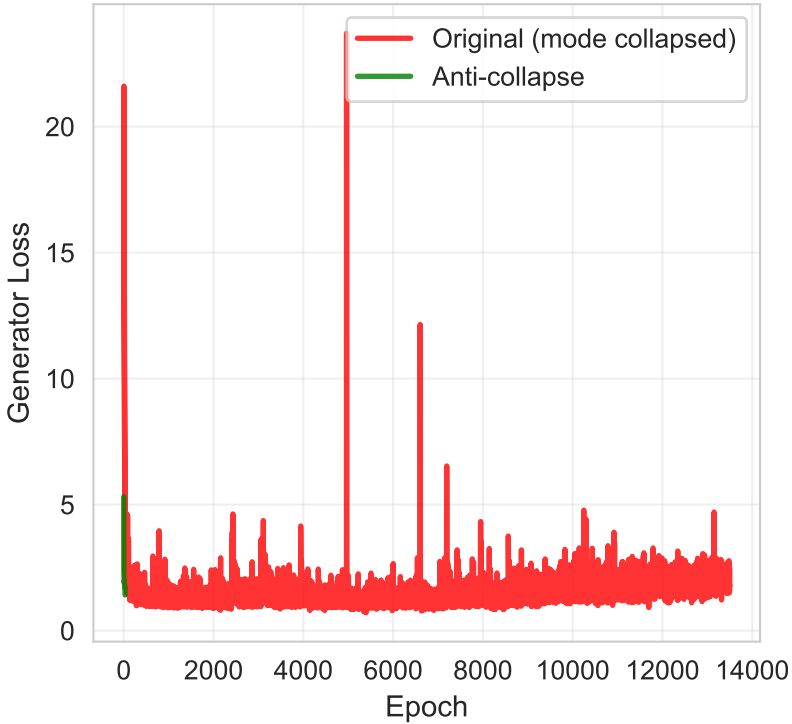
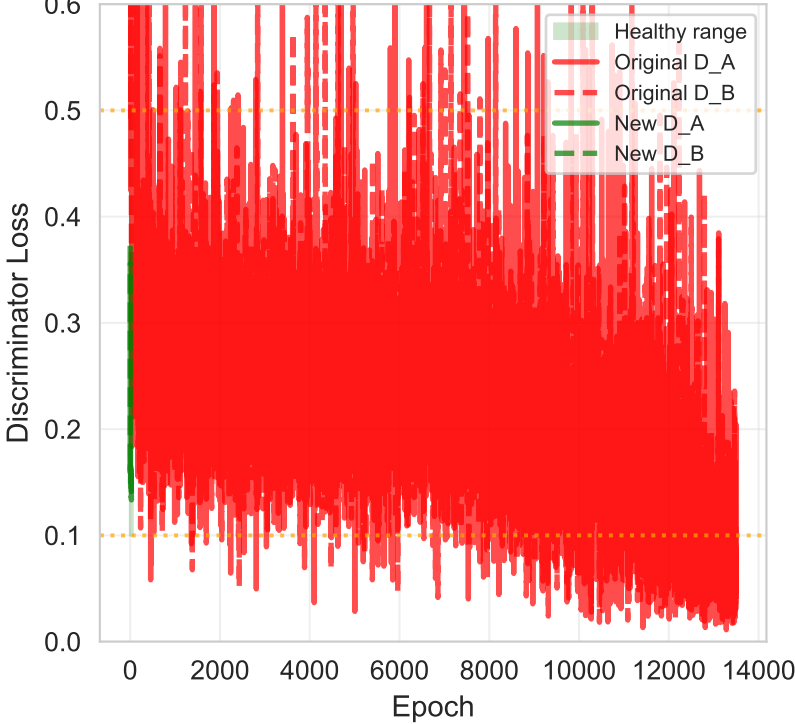


Statistical Analysis & Performance Summary

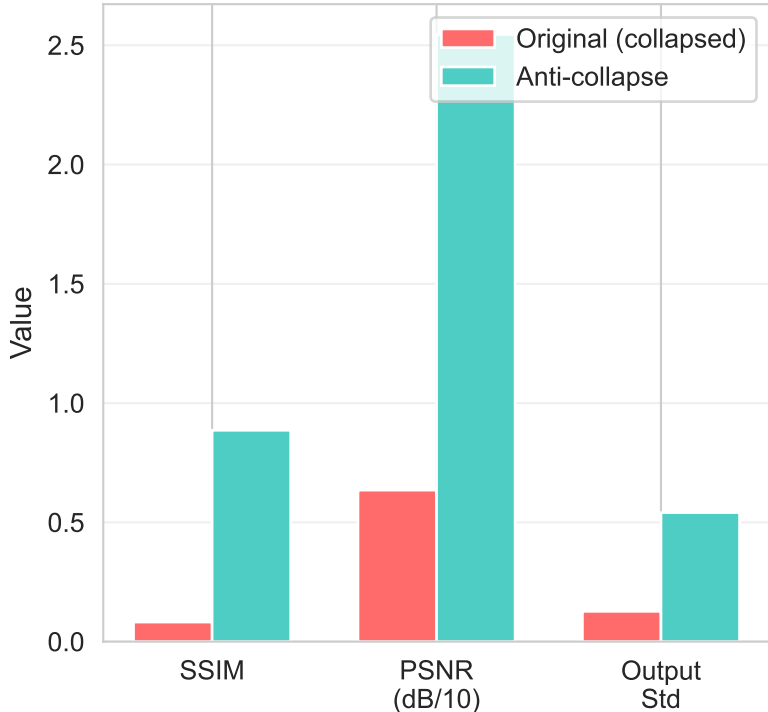
Generator Loss Convergence



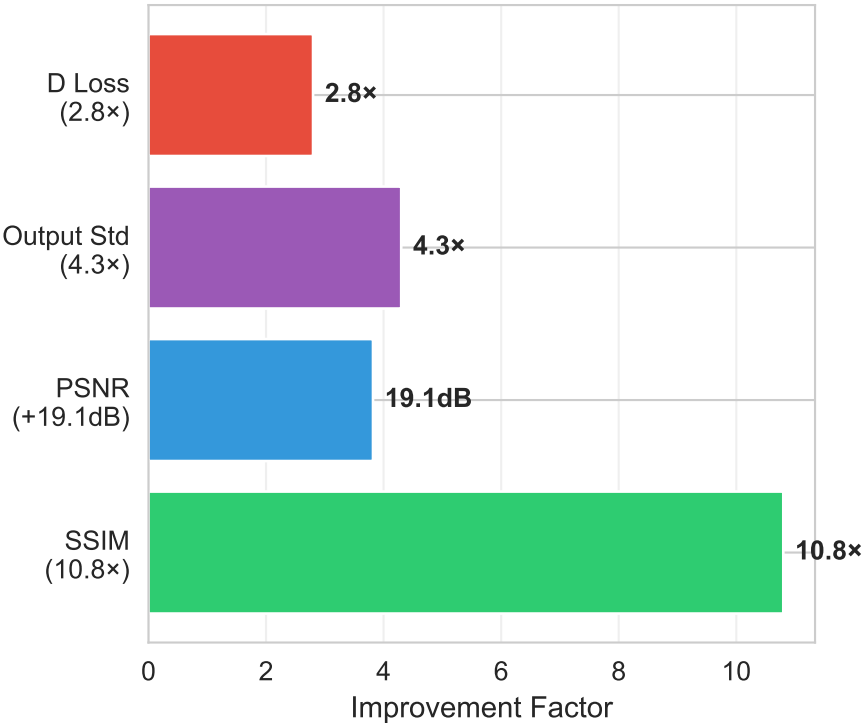
Discriminator Health Over Training



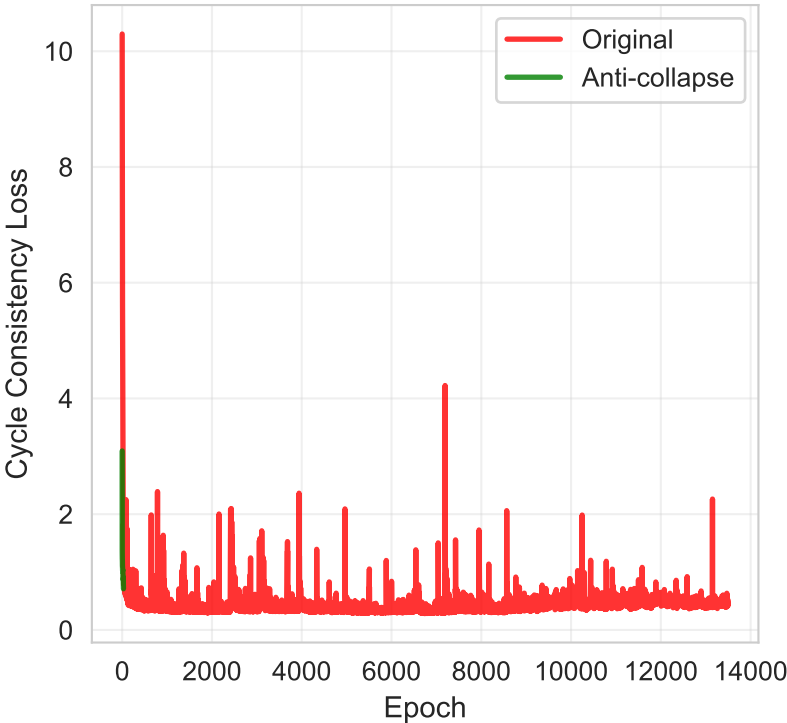
Performance Metrics Comparison



Improvement Over Mode-Collapsed Model



Cycle Loss Convergence



FINAL MODEL PERFORMANCE

Cycle Consistency (654 subjects):

- SSIM: 0.886 ± 0.016
- PSNR: 25.45 ± 1.37 dB
- MAE: 0.045 ± 0.010

Translation Quality:

- BraTS→UPenn: SSIM 0.896
- UPenn→BraTS: SSIM 0.885

Mode Collapse Status:

- ✓ RESOLVED
- Output Std: 0.541 (healthy > 0.3)
- D_A Loss: 0.134 (healthy 0.1-0.5)
- D_B Loss: 0.142 (healthy 0.1-0.5)

Model Architecture:

- Generator: 6 ResBlocks, 64 base filters
- Discriminator: PatchGAN + Spectral Norm
- Training: 30 epochs, TTUR, Label Smoothing