VCare, Virtual Reality Therapy

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Development Plan

❖ Connecting video from VR to WebApp
   ➢ Therapist can see patient in the VR session

❖ Integrating Apple Watch and using its biometrics with web app

❖ Post-session analysis
   ➢ Generating data and graphs based on the performance of the patient after the session has concluded

❖ Gamify VR environment, a specific mode for social anxiety
   ➢ Number of people in environment
   ➢ Volume of people in environment
   ➢ Scripted conversation, intensity of conversation
   ➢ Ambient sounds in the environment
   ➢ All of the above should be adjustable in real time depending on the state of the patient
➢ All of the above should be represented as a game state
❖ Creating a real time feedback loop algorithm to adjust parameters
➢ Implementation of various levels of parameters
➢ Parameters to change will probably be number of people, level of surrounding sounds, intensity of conversation
➢ Parameters are adjustable both automatically through patient info and manually by the therapist looking at the web app
❖ Improving UI/Frontend of WebApp
❖ Adding a menu screen to the VR app
➢ Menu should allow for typing in a room key
➢ Menu should be able to have the VR change scenes

Sprint 5:
➢ Building UI for Web App, displaying the video feed from session, transcription, and other biometrics from the patient
➢ Implementation of voice tone analysis
➢ Implementation of automatic level adjustment on server side
➢ VR environment refinement, menu splash screen

Sprint 6:
➢ Apple Watch arrival
➢ Integration of Apple Watch’s biometrics to capture more data on the patient during the session allowing for more factors to adjust the parameters of the session
➢ Implementation of automatic level adjustment on client side
Sprint 7:

➢ Implementing post session analysis
  ○ Overall session score
  ○ Over-time graphs
➢ Potentially start building scripted conversation

Sprint 8:

➢ Finish building scripted conversations and integrate into level difficulty
➢ Add more post session analysis
➢ Stress-test
➢ Prepare for presentation
  ○ Script demo
  ○ Make slides