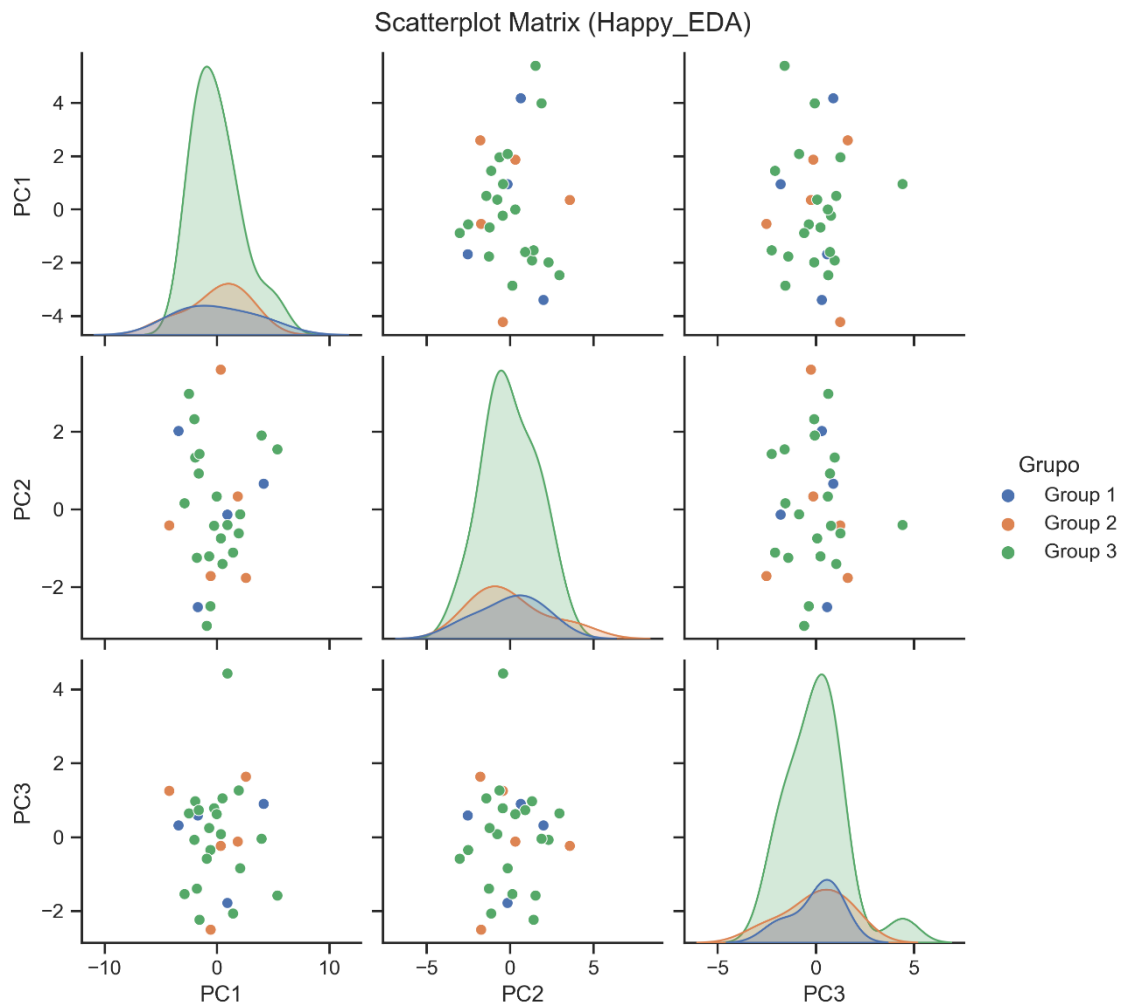**Figure EH1:** Scatterplot matrix considering the first three principal components obtained based on the principal components analysis over the features selected based on methodology A and with the consideration of ECG signal on the happy stimuli.
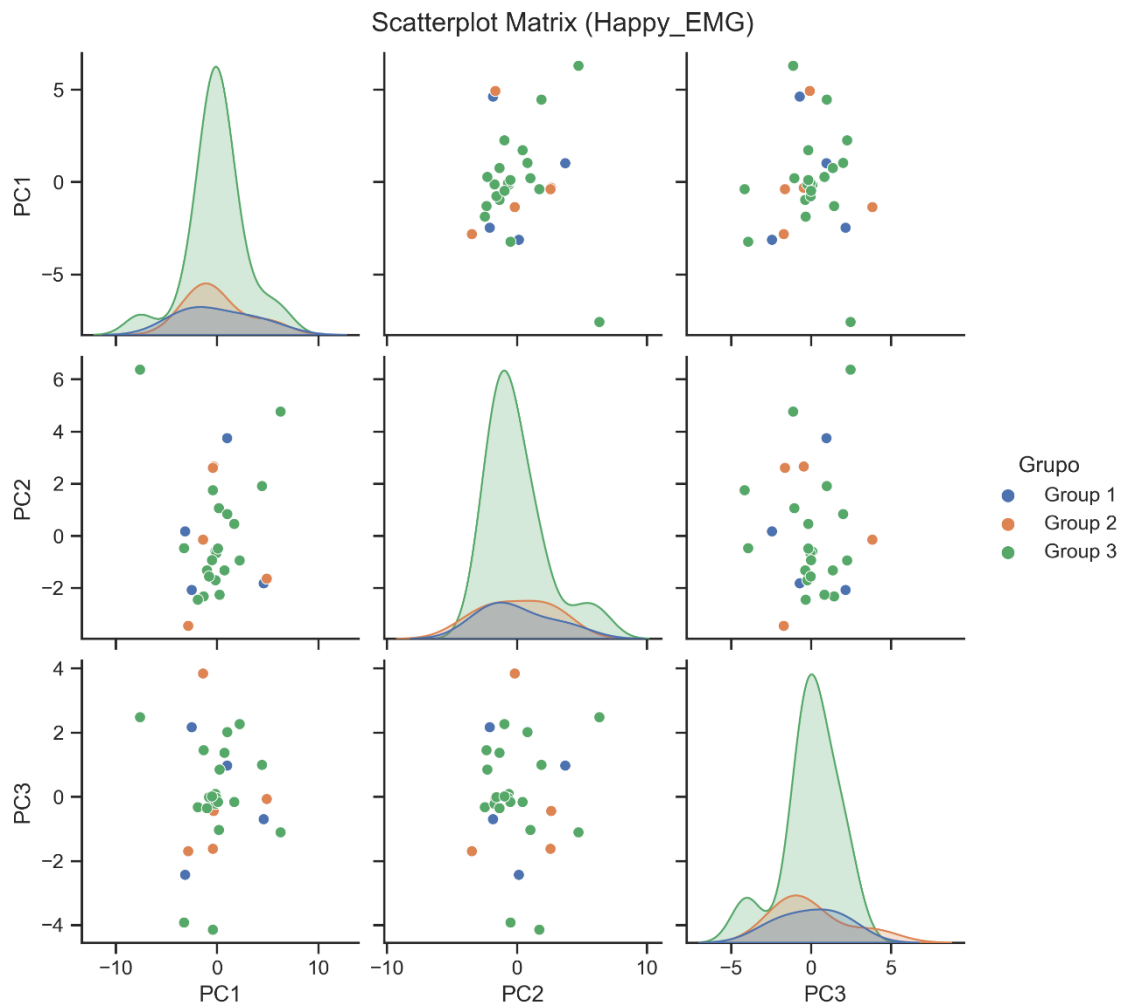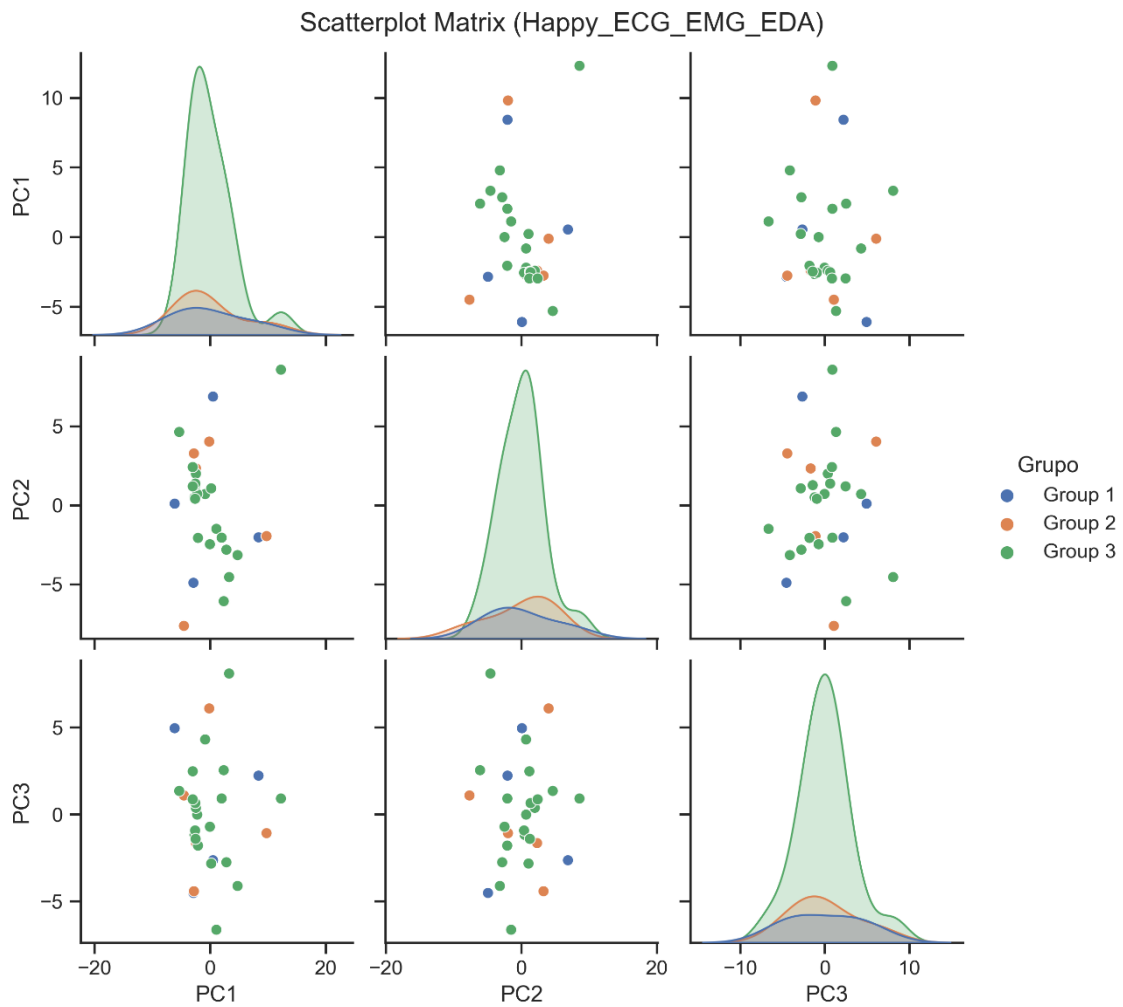
Figure EH2: Scatterplot matrix considering the first three principal components obtained based on the principal components analysis over the features selected based on methodology A and with the consideration of EDA signal on the happy stimuli.

Figure EH3: Scatterplot matrix considering the first three principal components obtained based on the principal components analysis over the features selected based on methodology A and with the consideration of EMG signal on the happy stimuli.

Figure EH4: Scatterplot matrix considering the first three principal components obtained based on the principal components analysis over the features selected based on methodology A and with the consideration of consideration of all physiological signals together on the happy stimuli.