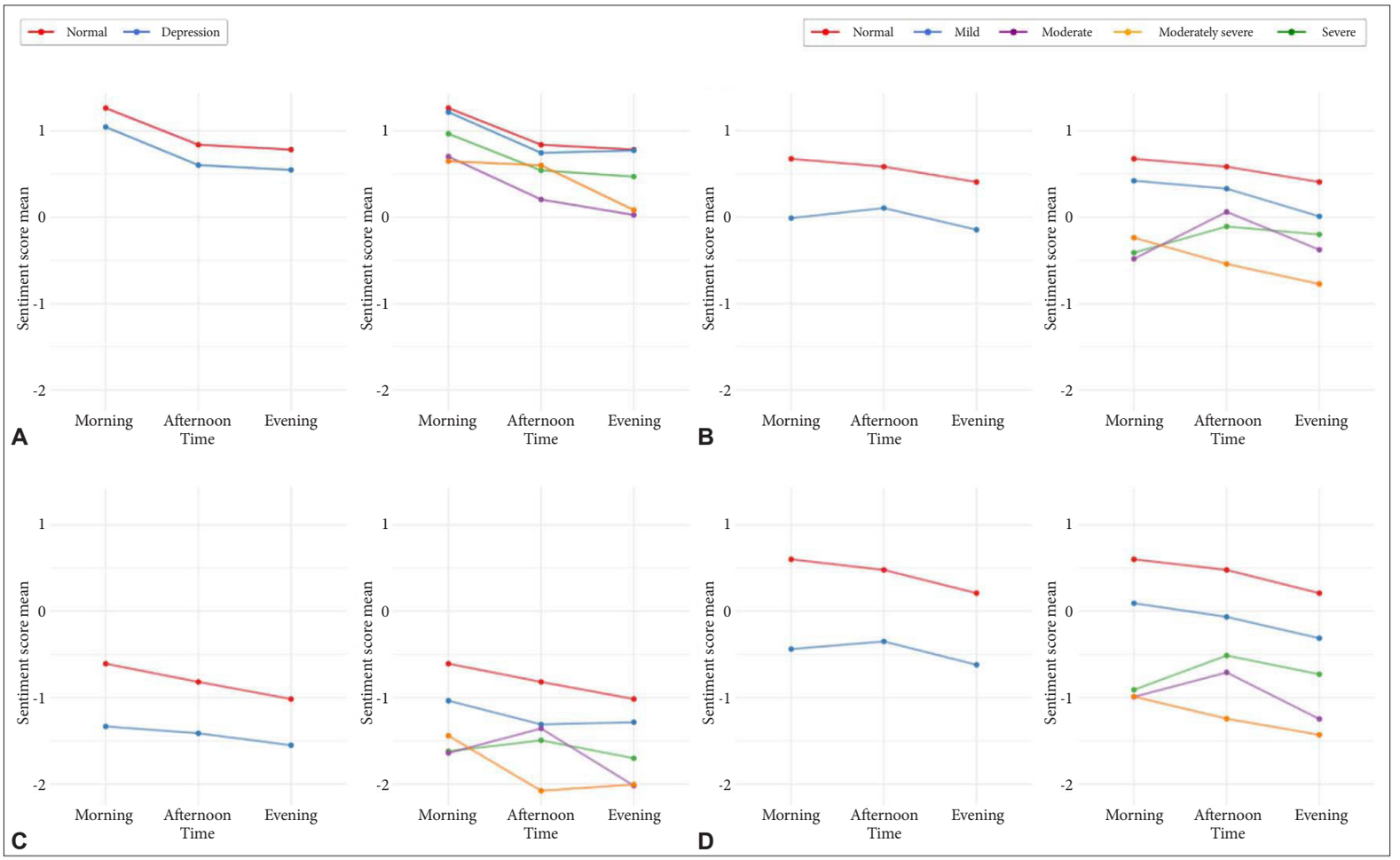

Supplementary Figure 2. Sentiment differences by time of day, estimated by lexicon-based and large language model-based approaches. Mean sentiment scores are plotted by time of day (morning, afternoon, evening) and depression severity group using four approaches: (A) Linguistic Inquiry and Word Count, (B) Mistral, (C) Qwen, and (D) GPT. The top row presents binary group comparisons (Normal vs. Depression), and the bottom row presents depression severity group comparisons (normal, mild, moderate, moderately severe, severe; according to Patient Health Questionnaire-9 scores).