Title: Automatic Identification of Ruptures in Transcribed Psychotherapy Sessions

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Abstract

The client-therapist relationship (therapeutic alliance) within a psychotherapy treatment is considered a powerful predictor of therapy success across treatment modalities and disorders. Conversely, when a rupture occurs in the therapeutic alliance, it can often lead to unilateral termination of the treatment by the client or to poor psychotherapy outcomes, especially when the rupture is not recognized by the therapist. In the current study we aimed to automatically captur alliance rupture in transcribed therapy sessions. Transcripts of 873 psychotherapy sessions from 68 clients treated by 52 therapists were analyzed. At the end of each session, clients and therapists self-reported the occurrence of a rupture during the session. The NLP model was trained on the text and self-reported rupture scores from both therapists and clients. The results indicated that our model outperformed a strong majority baseline by a large margin and captured client reported ruptures unidentified by therapists in 40% of such cases.