

FIGURE 1

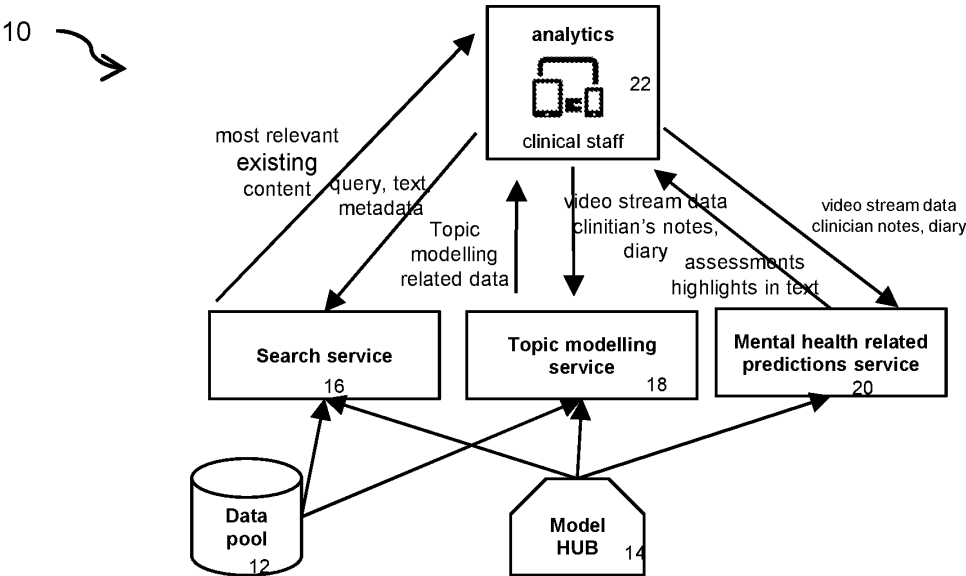
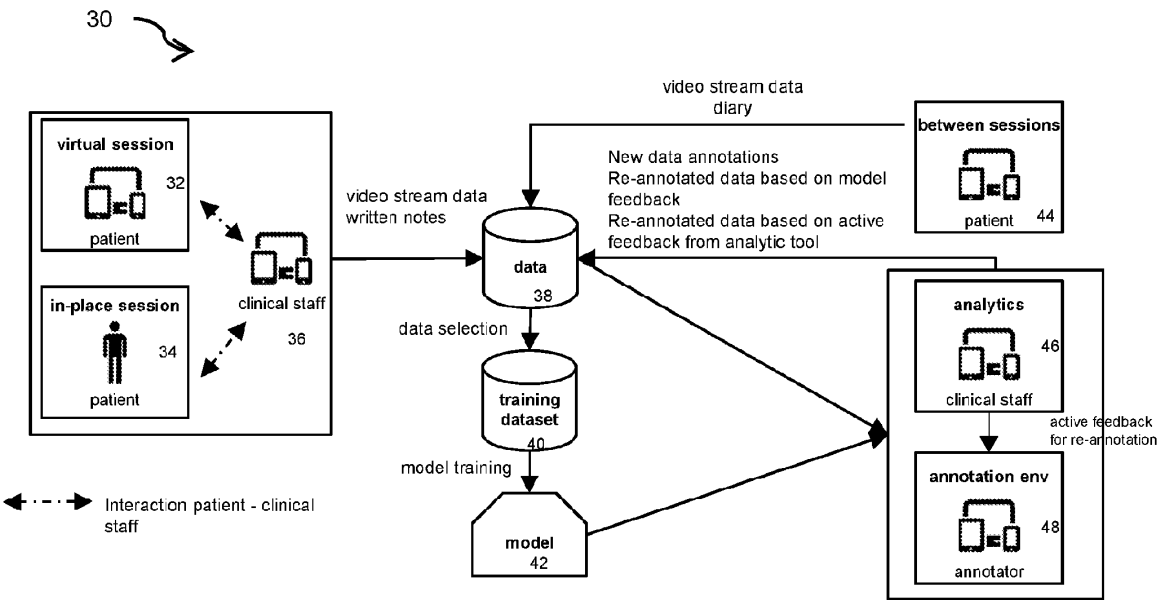


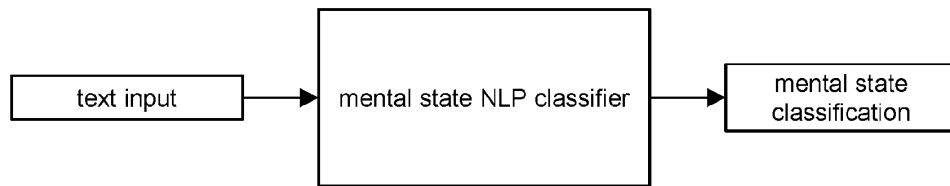
FIGURE 2



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FIGURE 3

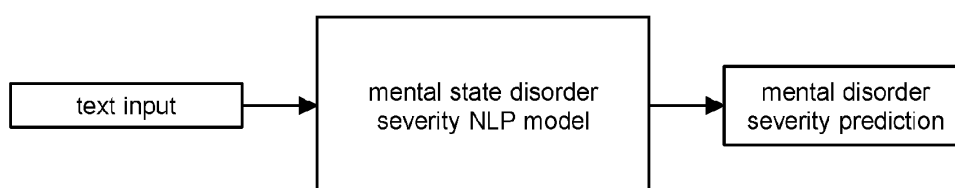
I. Assessment of pathological & non-pathological mental states (classification) from the text.



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FIGURE 4

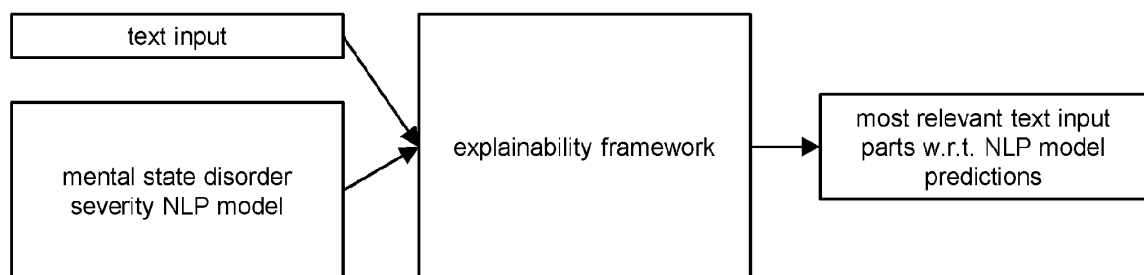
II. Assessment of specific mental disorder severity & progression from the text.



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FIGURE 5

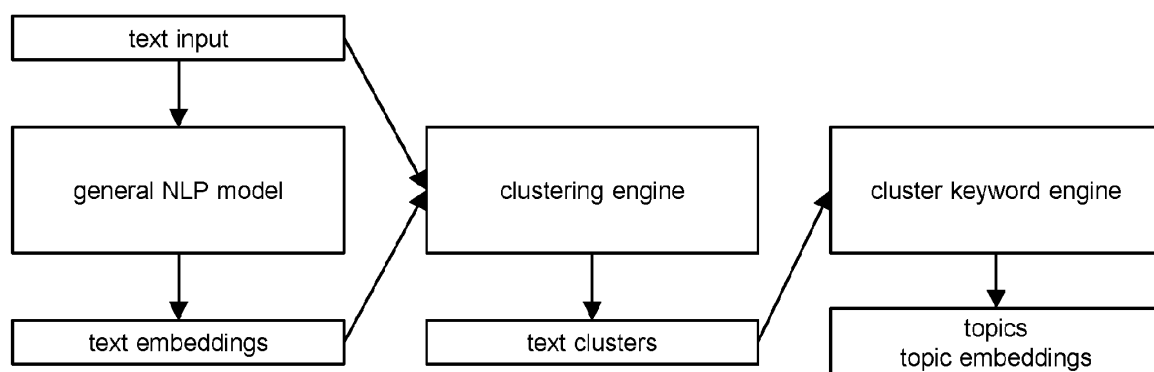
III. Highlighting parts of text with high mental disorder severity.



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FIGURE 6

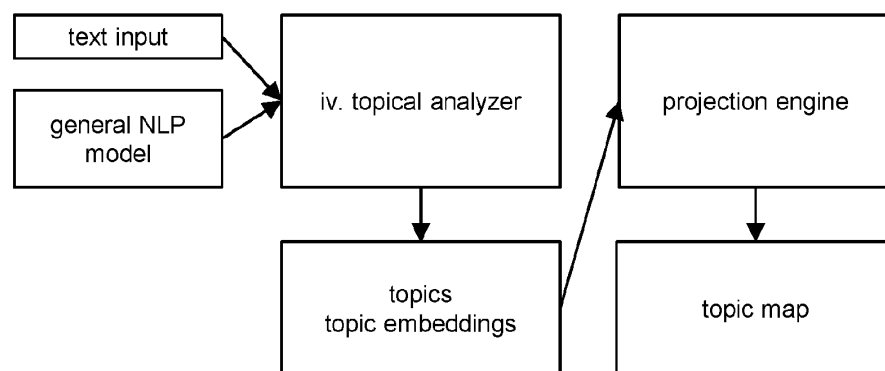
IV. Topical analysis of psychotherapeutic texts & patient's reports.



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FIGURE 7

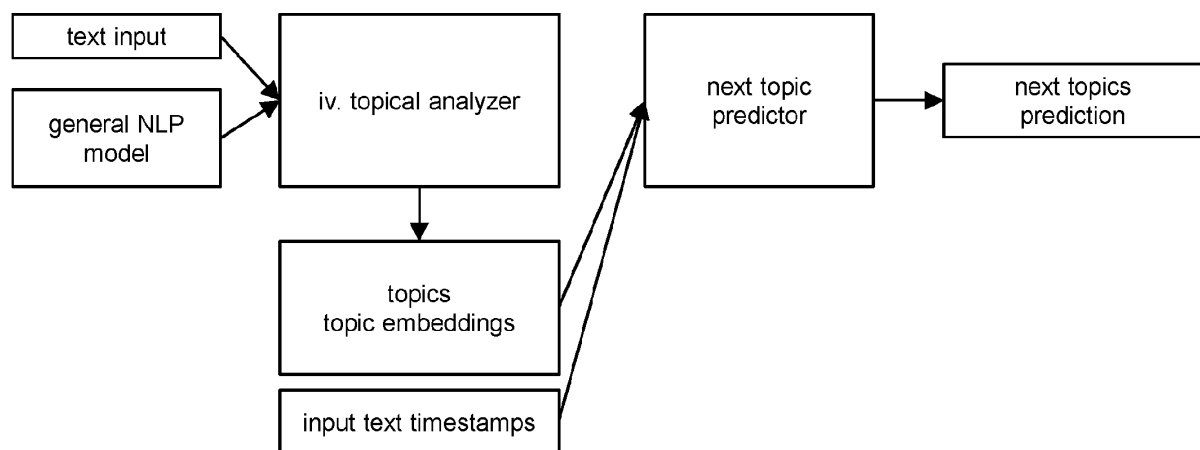
V. Projecting psychotherapeutic session content into a topic map of relations.



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FIGURE 8

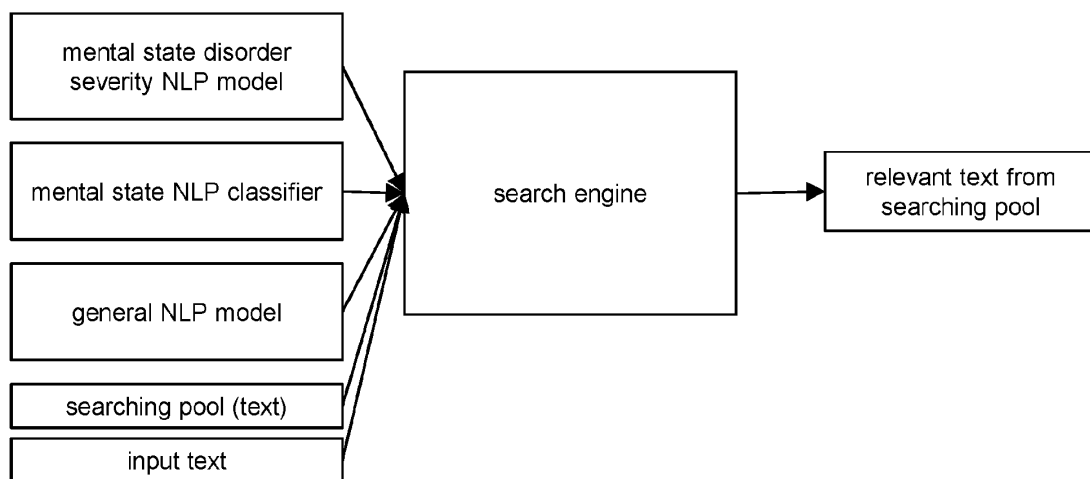
VI. Predicting topics and keywords occurrence in next session based on their presence (frequency/criticality) in previous sessions



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FIGURE 9

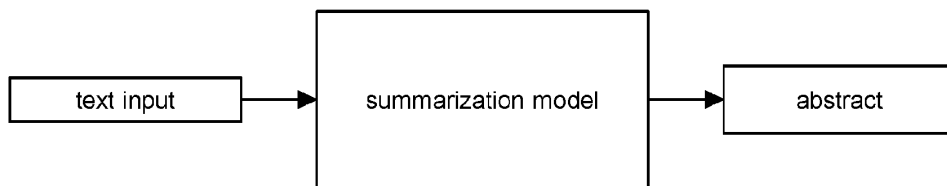
VII. Search for patients reporting similar behavioural, psychological or emotional symptoms, indications or states.



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FIGURE 10

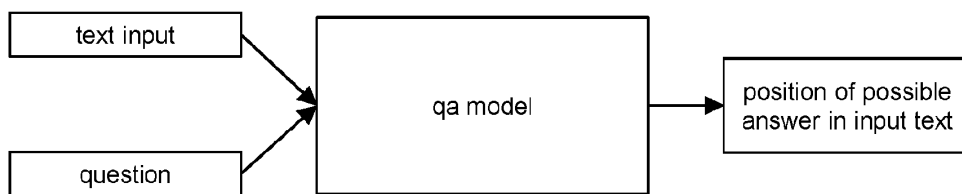
VIII. Summarization of large volume of psychotherapeutic texts into a shorter abstract



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FIGURE 11

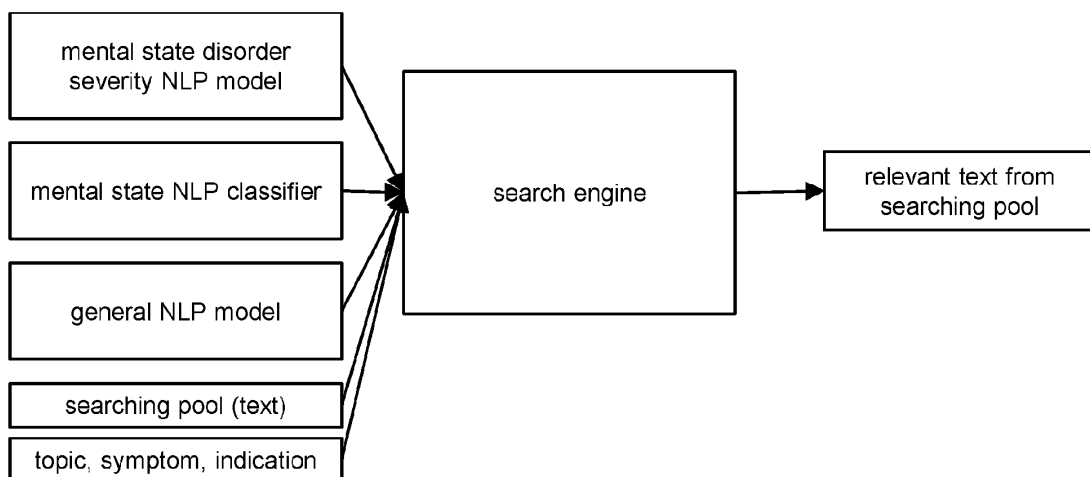
IX. Question answering on the psychotherapeutic text



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FIGURE 12

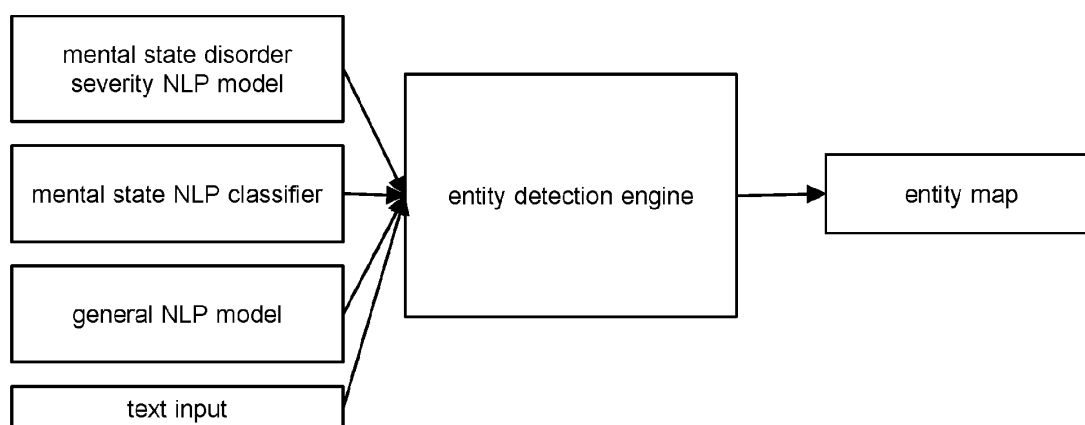
X. Text search over the psychotherapeutic transcript based on text model embeddings, restricted by clinically relevant topics, symptoms or indications.



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FIGURE 13

XI. Pairing critical psychological events, with clinical relevance (or topics), with concrete entities in the text identified via entity recognition model.



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FIGURE 14

BEHAVIORAL HEALTH OUTPATIENT CLINIC
2121 Main Street
Anywhere, USA

Date of Exam: 6/9/2016
Time of Exam: 3:38:08 PM

Patient Name: Little, Aimee
Patient Number: 1000010659748

Psychotherapy Progress Note

Mrs. Little seems to have had an inadequate response to treatment as yet. Symptoms of depression continue to be described. Her symptoms, as noted, are unchanged and they are just as frequent or intense as previously described. Mrs. Little describes feeling sad. Mrs. Little denies suicidal ideas or intentions. Mrs. Little's anxiety symptoms continue. Mrs. Little reports the symptoms of this disorder continue unchanged. The subjective feeling of apprehension is occurring. Hypervigilance is occurring more frequently.

BEHAVIOR:

Her self care is reduced and less attention is being paid to these tasks. She reports the feeling that the performance of domestic tasks has to be forced and are performed with difficulty. She is socially isolated. Sleep problems are reported. Difficulty staying asleep is reported.

CONTENT OF THERAPY:

The patient today spoke mainly about issues involving coping with depression. Problems in the family were also discussed by the patient. Mrs. Little shared the following pertinent details during this session: "I miss my husband terribly and wonder if I will ever get over this." Feelings of loss were also expressed. Feelings of grief were also expressed.

THERAPEUTIC INTERVENTION:

This session the therapeutic focus was on facilitating communication of feelings. Patient urged to ask for help and support from staff member or therapist when feeling depressed. Aimee will use session to deal with grief over loss as demonstrated by the expression of painful feelings along with associated affect. She was encouraged to ventilate. Ways to reduce stress were also discussed with the patient.

Diagnoses:

Adjustment disorder with depressed mood, F43.21 (ICD-10) (Active)
Generalized anxiety disorder, F41.1 (ICD-10) (Active)
Histrionic personality disorder, F60.4 (ICD-10) (Active)

Instructions / Recommendations / Plan:

The risks and benefits of outpatient therapy were explained to Mrs. Little. She was encouraged to join a grief support group held at her church.

Return 1 week, or earlier if needed.

Notes & Risk Factors:

Acute Grief: Death of husband 4/1/15

90834 Psychotherapy 45 min.