

SUMMARY

[0004] The disclosed subject matter includes systems and methods for providing therapeutic content via a digital therapeutic (“DTx”) for the treatment of mood disorders, such as depression and, in particular, major depressive disorder (MDD). The therapeutic content may include memory task exercises, psychotherapy lessons, and/or other content. The memory task exercises may include sequentially displaying two or more expression images to a patient receiving treatment for depression. The expression images may be configured to depict certain emotions. The patient may be prompted to determine whether the respective emotions depicted by the displayed expression images match one another. A patient response may be received indicating whether the respective emotions match.

[0005] The psychotherapy lessons may be encoded as content, such as videos (in particular, animated videos), audio (such as song, narratives, etc.), haptic content, or other forms of content. The content of the psychotherapy lessons may be configured to provide therapeutic intervention through at least one of emotion regulation (ER), behavioral activation (BA), or cognitive restructuring (CR).

[0005a] In a first aspect, the present disclosure provides a treatment device to treat a mood disorder via a digital therapeutic comprising a plurality of memory task exercises and a plurality of psychotherapy lessons, the treatment device comprising: a processor programmed to: access a treatment schedule that defines a duration and timing of administration of the digital therapeutic; identify, on a first day of the treatment schedule, a first memory task exercise, from among the plurality of memory task exercises, to be administered on the first day; access a first plurality of expression images associated with the first memory task exercise, wherein each of the first plurality of expression images is configured to convey a respective emotion; sequentially display, via the display device, the first plurality of expression images to a patient receiving treatment for the mood disorder; display a prompt to the patient to provide an input on whether the respective emotion of a first expression image of the first plurality of expression images matches the respective emotion of a second expression image of the first plurality of expression images; receive a patient response indicating whether the respective emotions of the first and second expression images of the first plurality of expression images match one another; identify, on a second day of the treatment schedule, a psychotherapy lesson from among the plurality of

psychotherapy lessons, to be administered on the second day; and display the psychotherapy lesson with an option to repeat one or more prior psychotherapy lessons.

[0005b] In a second aspect, the present disclosure provides a method for treating depression, the method comprising: providing memory task exercises according to a first schedule, wherein providing the memory task exercises comprises: sequentially displaying a first plurality of expression images to a patient receiving treatment for depression, wherein each of the first plurality of expression images is configured to convey a respective emotion; prompting the patient to provide an input indicating whether the respective emotion of a first expression image of the first plurality of expression images matches the respective emotion of a second expression image of the first plurality of expression images; and receiving a patient response indicating whether the respective emotions of the first and second expression images of the first plurality of expression images match one another; and providing psychotherapy lessons according to a second schedule, wherein providing the psychotherapy lessons includes displaying an animated video to the patient that is configured to provide therapeutic intervention through at least one of emotion regulation, behavioral activation and cognitive restructuring.

[0005c] In a third aspect, the present disclosure provides a computer-readable medium for storing instructions that render therapeutic content for treating depression, the instructions being executable by one or more processing devices to perform operations comprising: providing memory task exercises according to a first schedule, wherein providing the memory task exercises includes: sequentially displaying a first plurality of expression images to a patient receiving treatment for depression, wherein each of the first plurality of expression images is configured to convey a respective emotion; prompting the patient to provide an input indicating whether the respective emotion of a first expression image of the first plurality of expression images matches the respective emotion of a second expression image of the first plurality of expression images; and receiving a patient response indicating whether the respective emotions of the first and second expression images of the first plurality of expression images match one another; and providing psychotherapy lessons according to a second schedule, wherein providing the psychotherapy lessons includes displaying an animated video to the patient that is configured to provide therapeutic intervention

through at least one of emotion regulation, behavioral activation and cognitive restructuring.

[0006] According to an embodimentexample, the therapeutic content may be provided according to a treatment schedule. The treatment schedule may define a treatment period (duration of treatment) and timing (when to provide) the digital therapeutic. For example, the memory task exercises may be provided according to a treatment schedule. Likewise, the psychotherapy lessons may be provided according to a treatment schedule, which may be the same as or separate from the treatment schedule for the memory task exercises. In other words, a single treatment schedule may define the duration and/or timing for both the memory task exercises and the psychotherapy lessons or a first treatment schedule may define a first duration and timing for the memory task exercises and another, second, treatment schedule may define a second duration and timing for the psychotherapy lessons.

[0007] The treatment schedule of memory task exercises and psychotherapy lessons (whether a single schedule or separate schedules) may define a particular treatment period, such as, for example, a six-week treatment period.

[0008] In one or more embodimentexamples, the memory task exercises may include emotional face memory task (EFMT) exercises and the psychotherapy lessons may include cognitive behavioral therapy (CBT) lessons. The EFMT exercises and the