CLAIMS

What is claimed is:

1. A method for managing behavioral treatment therapy, the method implemented by a computing device, the method comprising:

generating a treatment plan comprising a plurality of therapeutic techniques that is transmitted to at least one of a client at a client device or a practitioner at a practitioner device associated with the client;

obtaining analytic data regarding execution of at least one of the therapeutic techniques from at least one of the client device or the practitioner device, biomarker data from at least one biomarker sensor coupled to the client, environmental data from at least one environmental characteristic sensor, and environmental audiovisual data at a location of and external from the client during execution of the at least one of the therapeutic techniques;

adjusting one or more of the plurality of therapeutic techniques of the treatment plan based on the analytic data, the biomarker data, and the environmental data, wherein the adjusting the one or more of the plurality of therapeutic techniques of the treatment plan is further based on any threshold based changes in the environmental audiovisual data from any prior location of execution of the one or more therapeutic techniques for the client, wherein the adjusting further comprises:

employing artificial intelligence to analyze the obtained analytic data, biomarker data, and environmental data for the client, additional obtained analytic data, biomarker data, and environmental data of one or more other clients correlated to the client based on a corresponding one of a plurality of types of conditions, and further additional obtained analytic data, biomarker data, and environmental data of one or more other additional clients having an uncorrelated one of the plurality of types of conditions to the client with two or more other correlated aspects to adjust the one or more of the plurality of therapeutic techniques of the treatment plan, wherein the two or more other correlated aspects comprise treatment plans, age, or social determinant data; and

transmitting the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to at least one of the client device or the practitioner device.

2. The method as set forth in claim 1 wherein the obtaining further comprises:

obtaining at least movement data from at least one movement sensor monitoring the client during the execution of at least one of the therapeutic techniques;

wherein the adjusting the one or more of the plurality of therapeutic techniques of the treatment plan is further based on the obtained movement data.

3. The method as set forth in claim 2 further comprises:

identifying any stimming from the movement data;

wherein the adjusting the one or more of the plurality of therapeutic techniques of the treatment plan is further based on any of the identified stimming from the movement data.

4. The method as set forth in claim 1 wherein the obtaining further comprises:

obtaining from at least one caregiver device observational data from monitoring the client during the execution of at least one of the therapeutic techniques;

wherein the adjusting the one or more of the plurality of therapeutic techniques of the treatment plan is further based on the obtained observational data.

5. The method as set forth in claim 1 wherein the biomarker data comprises one or more of heart rate, respiration, body temperature or anxiety level and wherein the environmental data comprises one or more of a temperature reading, a pressure reading, or lighting level reading.

6. The method as set forth in claim 1 wherein the adjusting the one or more of the plurality of therapeutic techniques further comprises;

adding an instruction that is configured to adjust at least one actuator coupled to control a device associated with the client.

7. The method as set forth in claim 6 wherein the instruction further comprises a pressure adjustment instruction that is configured to adjust a pressure actuator coupled to control a pressure device associated with the client.

8. The method as set forth in claim 6 wherein the obtaining further comprises:

Obtaining a current location of the client from at least one of the client device or the practitioner device;

wherein the instruction further comprises an environmental characteristic instruction that is configured to adjust an environmental actuator that is coupled to control an environmental characteristic device in a surrounding area associated with the client based on the obtained current location.

9. The method as set forth in claim 1 further comprising:

determining when an intervention in the treatment plan is required based on the analytic data and at least one of the biomarker data or the environmental data; and

transmitting in real time an electronic notice signaling the intervention to at least one of the practitioner device, a caregiver device, or the client device when the determination indicates the intervention is required.

10. The method as set forth in claim 1 wherein the transmitting the adjusted one or more of the plurality of therapeutic techniques of the treatment plan further comprises:

determining which of the adjusted one or more of the plurality of therapeutic techniques of the treatment plan are to be carried out by the practitioner device or one of the at least one of the client device or a caregiver device; and

transmitting each of the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to either the practitioner device or one of the at least one of the client device or the caregiver device based on the determination.

11. An apparatus comprising:

a processor; and

a memory coupled to the processor which is configured to be capable of executing programmed instructions comprising and stored in the memory to:

generate a treatment plan comprising a plurality of therapeutic techniques that is transmitted to at least one of a client at a client device or a practitioner at a practitioner device associated with the client;

obtain analytic data regarding execution of at least one of the therapeutic techniques from at least one of the client device or the practitioner device, biomarker

data from at least one biomarker sensor coupled to the client, environmental data from at least one environmental characteristic sensor, and environmental audiovisual data at a location of and external from the client during execution of the at least one of the therapeutic techniques;

adjust one or more of the plurality of therapeutic techniques of the treatment plan based on the obtained analytic data, the biomarker data, the environmental data, and the environmental audiovisual data at the location of and external from the client, wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on any threshold based changes in the environmental audiovisual data from any prior location of execution of the one or more therapeutic techniques for the client, wherein the adjust further comprises:

employing artificial intelligence to analyze the obtained analytic data, biomarker data, and environmental data for the client, additional obtained analytic data, biomarker data, and environmental data of one or more other clients correlated to the client based on a corresponding one of a plurality of types of conditions, and further additional obtained analytic data, biomarker data, and environmental data of one or more other additional clients having an uncorrelated one of the plurality of types of conditions to the client with two or more other correlated aspects to adjust the one or more of the plurality of therapeutic techniques of the treatment plan, wherein the two or more other correlated aspects comprise treatment plans, age, or social determinant data; and

transmit the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to at least one of the client device or the practitioner device.

12. The apparatus as set forth in claim 11 wherein for the obtain analytic data and at least one of biomarker data from at least one biomarker sensor or environmental data the processor is further configured to be capable of executing the stored programmed instructions to:

obtain at least movement data from at least one movement sensor monitoring the client during the execution of at least one of the therapeutic techniques;

wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on the obtained movement data.

13. The apparatus as set forth in claim 12 wherein for the adjust the one or more of the plurality of therapeutic techniques of the treatment plan the processor is further configured to be capable of executing the stored programmed instructions to:

identify any stimming from the movement data;

wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on any of the identified stimming from the movement data.

14. The apparatus as set forth in claim 11 wherein for the obtain analytic data and at least one of biomarker data from at least one biomarker sensor or environmental data the processor is further configured to be capable of executing the stored programmed instructions to:

obtain from at least one caregiver device observational data from monitoring the client during the execution of at least one of the therapeutic techniques;

wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on the obtained observational data.

15. The apparatus as set forth in claim 11 wherein the biomarker data comprises one or more of heart rate, respiration, body temperature or anxiety level and wherein the environmental data comprises one or more of a temperature reading, a pressure reading, or lighting level reading.

16. The apparatus as set forth in claim 11 wherein for the adjust the one or more of the plurality of therapeutic techniques the processor is further configured to be capable of executing the stored programmed instructions to:

add an instruction that is configured to adjust at least one actuator coupled to control a device associated with the client.

17. The apparatus as set forth in claim 16 wherein the instruction further comprises a pressure adjustment instruction that is configured to adjust a pressure actuator coupled to control a pressure device associated with the client.

18. The apparatus as set forth in claim 16 wherein for the obtain analytic data and at least one of biomarker data from at least one biomarker sensor or environmental data the processor is further configured to be capable of executing the stored programmed instructions to:

obtain a current location of the client from at least one of the client device or the practitioner device;

wherein the instruction further comprises an environmental characteristic instruction that is configured to adjust an environmental actuator that is coupled to control an environmental characteristic device in a surrounding area associated with the client based on the obtained current location.

19. The apparatus as set forth in claim 11 wherein the processor is further configured to be capable of executing the stored programmed instructions to:

determine when an intervention in the treatment plan is required based on the analytic data and at least one of the biomarker data or the environmental data; and

transmit in real time an electronic notice signaling the intervention to at least one of the practitioner device, a caregiver device, or the client device when the determination indicates the intervention is required.

20. The apparatus as set forth in claim 11 wherein for the transmit the adjusted one or more of the plurality of therapeutic techniques of the treatment plan the processor is further configured to be capable of executing the stored programmed instructions to:

determine which of the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to be completed are to be carried out by the practitioner device or one of the at least one of the client device or a caregiver device; and

transmit each of the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to either the practitioner device or one of the at least one of the client device or the caregiver device based on the determination.

21. A non-transitory computer readable medium having stored thereon instructions comprising executable code which when executed by one or more processors, causes the one or more processors to:

generate a treatment plan comprising a plurality of therapeutic techniques that is transmitted to at least one of a client at a client device or a practitioner at a practitioner device associated with the client;

obtain analytic data regarding execution of at least one of the therapeutic techniques from at least one of the client device or the practitioner device, biomarker data from at least one biomarker sensor coupled to the client, environmental data from at least one environmental characteristic sensor, and environmental audiovisual data at a location of and external from the client during execution of the at least one of the therapeutic techniques;

adjust one or more of the plurality of therapeutic techniques of the treatment plan based on the obtained analytic data, the biomarker data, the environmental data, and environmental audiovisual data at the location of and external from the client, wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on any threshold based changes in the environmental audiovisual data from any prior location of execution of the one or more therapeutic techniques for the client, wherein the adjust further comprises:

employing artificial intelligence to analyze the obtained analytic data, biomarker data, and environmental data for the client, additional obtained analytic data, biomarker data, and environmental data of one or more other clients correlated to the client based on a corresponding one of a plurality of types of conditions, and further additional obtained analytic data, biomarker data, and environmental data of one or more other additional clients having an uncorrelated one of the plurality of types of conditions to the client with two or more other correlated aspects to adjust the one or more of the plurality of therapeutic techniques of the treatment plan, wherein the two or more other correlated aspects comprise treatment plans, age, or social determinant data; and

transmit the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to at least one of the client device or the practitioner device.

22. The medium as set forth in claim 21 wherein for the obtain analytic data and at least one of biomarker data from at least one biomarker sensor or environmental data the executable code when executed by the one or more processors further causes the one or more processors to:

obtain at least movement data from at least one movement sensor monitoring the client during the execution of at least one of the therapeutic techniques;

wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on the obtained movement data.

23. The medium as set forth in claim 22 wherein for the adjust the one or more of the plurality of therapeutic techniques of the treatment plan the executable code when executed by the one or more processors further causes the one or more processors to:

identify any stimming from the movement data;

wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on any of the identified stimming from the movement data.

24. The medium as set forth in claim 21 wherein for the obtain analytic data and at least one of biomarker data from at least one biomarker sensor or environmental data the executable code when executed by the one or more processors further causes the one or more processors to:

obtain from at least one caregiver device observational data from monitoring the client during the execution of at least one of the therapeutic techniques;

wherein the adjust the one or more of the plurality of therapeutic techniques of the treatment plan is further based on the obtained observational data.

25. The medium as set forth in claim 21 wherein the biomarker data comprises one or more of heart rate, respiration, body temperature or anxiety level and wherein the environmental data comprises one or more of a temperature reading, a pressure reading, or lighting level reading.

26. The medium as set forth in claim 21 wherein for the adjust the one or more of the plurality of therapeutic techniques the executable code when executed by the one or more processors further causes the one or more processors to:

add an instruction that is configured to adjust at least one actuator coupled to control a device associated with the client.

27. The medium as set forth in claim 26 wherein the instruction further comprises a pressure adjustment instruction that is configured to adjust a pressure actuator coupled to control a pressure device associated with the client.

28. The medium as set forth in claim 26 wherein for the obtain analytic data and at least one of biomarker data from at least one biomarker sensor or environmental data the executable code when executed by the one or more processors further causes the one or more processors to:

obtain a current location of the client from at least one of the client device or the practitioner device;

wherein the instruction further comprises an environmental characteristic instruction that is configured to adjust an environmental actuator that is coupled to control an environmental characteristic device in a surrounding area associated with the client based on the obtained current location.

29. The medium as set forth in claim 21 wherein the executable code when executed by the one or more processors further causes the one or more processors to:

determine when an intervention in the treatment plan is required based on the analytic data and at least one of the biomarker data or the environmental data; and

transmit in real time an electronic notice signaling the intervention to at least one of the practitioner device, a caregiver device, or the client device when the determination indicates the intervention is required.

30. The medium as set forth in claim 21 wherein for the transmit the adjusted one or more of the plurality of therapeutic techniques of the treatment plan the executable code when executed by the one or more processors further causes the one or more processors to:

determine which of the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to be completed are to be carried out by the practitioner device or one of the at least one of the client device or a caregiver device; and

transmit each of the adjusted one or more of the plurality of therapeutic techniques of the treatment plan to either the practitioner device or one of the at least one of the client device or the caregiver device based on the determination.