

Amelia by XRHealth Clinical Case

Mindfulness and Virtual Reality
In children's population



Health care professional with expertise in VR:
Luciana Moretti

Patient

Girl, adopted 12 years old.

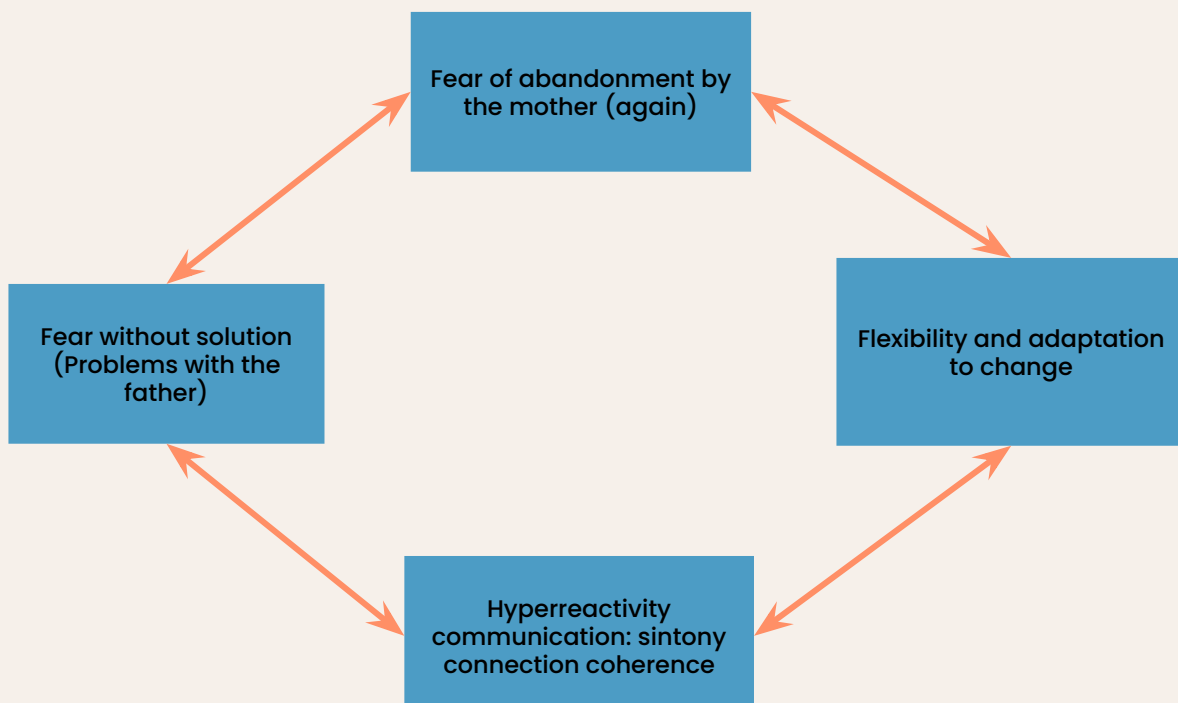
Presents episodes of anger and reactivity. Many conflicts and high stress in her family.

Presence of many fears and a low emotional regulation (everything frightens her and alters her).

Great fear of being abandoned (for a second time) when conflicts are present.

Loss of control when she doesn't get what she wants, even if it's something small.

Reference elements.



Objectives

Immediate objective: Stabilization and regulation

Reduce nervousness and anxiety.

Improve flexibility and adaptation to change as well as to reduce the loss of control towards her parents.

Methodology

Individual therapy based on mindfulness and narrative therapy.

Family therapy and orientation for her parents to approach the conflicts. WITHOUT VR.

Incorporation of virtual reality during individual therapy to facilitate the mindfulness learning and abilities.

- Create a place of inner calm by the immersion in relaxation and mindfulness scenarios.
- Create a flexible attentional focus so that the changes become less threatening.
- Be able to listen without having to react so quickly.
- Interrupt her habitual narrative flow by the effect given by the immersion with VR in first person in order to open a space for the narrative space.

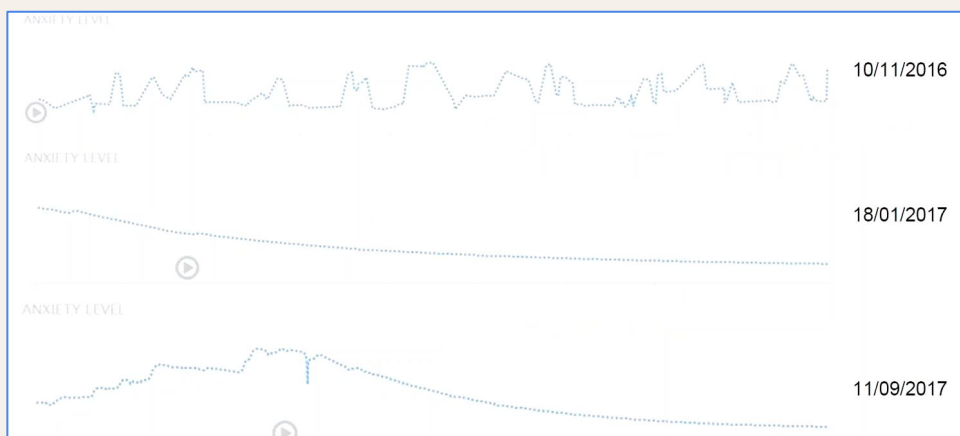
Development

Structure:

Initially start with passive environments (contemplative). In this case there's a deeper use of the environments. **No** meditative walks were used because they frightened her.

1. Body Scan.

- Recognition of discomfort sensations.
- Clear evolution of the Electrodermal response sensor curve during sessions.
- Attentional stabilization and stimulation of the flexible focalization.



2. Spring (No audio).

- **Describe** but not interpret nor judge what she sees in the environment.
- Description of the environment with **labelled technique**: Focal and peripheral attention towards the patient.
- **Generalization**: "Fire metaphor" To deal with thoughts that are difficult for her.

Development

3. Conscious walk (with audio)

- Once the environment is known and has worked all of the above.
- A conscious step is made by reviewing the mindfulness attitudes
- *Electrodermal response sensor curve*. Quite stable, regulates well her attention.



4. Under the sea with bubbles → Open field meditation

- Observe any mental event (sensation, thought, or emotion), take note, and let it surface and flow.
- Use of bubbles to encapsulate thoughts and water to make them flow.
- Labelling sensations, emotions and thoughts.
- Perception of her narrative processes (she realizes what her thoughts do when she doesn't want that thought) ex. change of thoughts from one bubble to another. - Many reflections are generated.

5. Mountain metaphor (Advanced in the therapeutic process, without audio)

- Stability, permanence, equanimity.
- Creation of an inner mountain, based on the visual and descriptive stimuli of the mountains. So the external elements do not affect her in such a great extent.
- Resistance in stressful situations

Results

Throughout the sessions it's possible to observe in the patient an **increase** in the level of **awareness** about the constructions she generates in certain situations without external information.

Using VR together with electrodermal response sensor facilitates the awareness of these processes. It allows the patient to observe in which moments she had greater tension and give an explanation of why she felt that way.



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