

A VR Application for Dealing Difficulties with Hardship and Enhancing Resilience: A Treatment for Adjustment Disorders.

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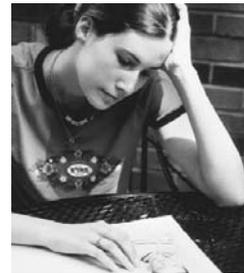
Adjustment Disorders (AD)

- A debilitating reaction to a stressful event or situation.
- When a person can't cope with a stressful event and develops emotional or behavioral symptoms
- The stressful event can be anything
- People with AD may have a wide variety of symptoms
- Symptoms must be developed within 3 months after the onset of the stressor.



Adjustment Disorders (AD)

- Very common disorders, that can affect anyone, regardless of gender, age, or lifestyle.
 - Incidence from 5 to 21%
 - the most common diagnosis in primary care
- Associated with
 - significant impairment in social or occupational functioning
 - marked distress that is in excess of normal and expectable reactions to the stressor.



AD: Treatment



- No significant studies to assess the efficacy of treatment
- Brief treatment using cognitive-behavioral strategies (CBT):
 - problem solving skills,
 - communication skills,
 - impulse control,
 - anger management skills,
 - and stress management skills
- Our team has developed a intervention program, that combine:
 - CBT
 - Positive Psychology assumptions
 - VR techniques

Why Positive Psychology?

- People are capable of transmuting traumatic experience to gain wisdom, personal growth, positive personality changes or more meaningful and productive lives
- Psychology has focused almost exclusively on the negative aspects of human behavior
- Positive Psychology ⇒ to focus also on strengths and optimal functioning. (Seligman & Csikszentmihalyi, 2000)
- Importance of protective psychological factors in the prevention and treatment of illness



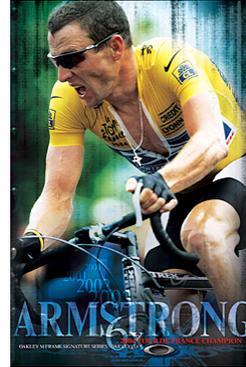
Resilience

- capacity for successful adaptation despite challenging or threatening circumstances and the development of competence under conditions of pervasive and/or severe adversity
- an individual's capacity for maintenance, recovery or improvement in mental health following life challenges
- Increased use in psychology (a goal of primary prevention mental health programs) .



Hardiness

- Closely related concept to resilience
- General health promoting factor which enables individuals to remain both psychologically and physically healthy despite confrontations with stressful situations or experiences
- "a constellation of personality characteristics that function as a resistance resource in the encounter with stressful life events" (Kobasa, Maddi & Kahn, 1982)



EMMA's PURPOSE

- *To create virtual context/situations that help the person to:*
 - Express, re-structure and process emotions
 - Express, re-structure and process information
 - Create new "vital narratives"
 - Incorporate in his/her life the "new vital narrative"

To do that EMMA does:

- Offer the patient tools to build his/her story
- Debrief that narrative to patient
- Re-make and correct the narrative but
 - With new elements
 - Varying the temporal order
 - Changing the beginning or the end
- Re constructing and telling stories from the past
- Constructing and telling stories from future
- Constructing and telling stories that have never happened

EMMA'S MAIN ELEMENTS :

- *EMMA's "room": An architectonic structure*
- *EMMA's "world" : the landscape around the architectnic strcture*



TREATMENT COMPONENTS

- Psychoeducation
 - Elaboration/Processing with EMMA tools
 - Acceptance/mindfulness techniques
 - Positive Psychology Strategies.
-
- 6 weekly sessions (60 min)

video

Treatment program for Adjustment Disorders



CASES STUDIES SERIE: CLINICAL DESCRIPTION

● **PARTICIPANT 1**

- 30-year-old man, engineer in telecommunications
- Having a relationship during 2 years with a woman who lived in Spain (he lived in England)
- He decided to change his job, come back to Spain and live with her. When he comes back, she abandons him.
- Currently he is living in a new city, having a new job with a lower salary and without a couple.
- Sadness, apathy, loss of interest in activities and limited-symptom anxiety attacks

● **PARTICIPANT 2**

- 25-year old woman, teacher of physical activities and sports
- Having a relationship during 4 1/2 years . He left her suddenly 4 months.
- She has also had problems with two friends due to a misunderstanding,
- Anxiety, sadness, apathy, fear of being alone, concentration and memory difficulties

● **PARTICIPANT 3**

- 25-year old woman, secretary in a dental clinic
- She lives with her parents and some months ago has found out that her father is having an affair with a workmate.
- Sadness, loss of interest in many activities, difficulties in making decisions, sleep problems and nightmares

ASSESSMENT PROTOCOL

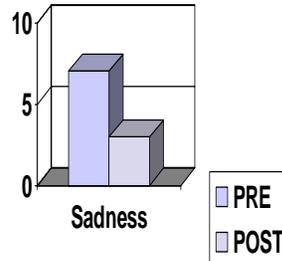
- **Diagnostic Interview following DSM-IV criteria**
- **Inventory of Loose and Stress** (Adapted from Prigerson et al., 1995: Inventory of Complicated Grief (ICG) .
- **Measures related to anxiety, depression, and other emotions:**
 - Positive and Negative Affect Scales (PANAS) (Watson, Clark & Tellegen, 1988).
 - Beck Depression Inventory (BDI) (Beck, et al, 1961).
 - Visual Analogue Scales to measure emotions (anxiety, sadness, anger, etc.).
- **Measures related with impairment and improvement:**
 - Maladjustment Scale (MS) (Adapted from Echeburúa, et al, 2000).
 - Impairment/Severity rated by the therapist (Adapted from Di Nardo, et al. 1994):
 - Improvement Scale, Therapist (IST) (Adapted from Guy, 1976)
 - Improvement Scale, Patient (ISP) (Adapted from Guy, 1976
- **Resilience Scale Wagnild, & Young, (1993).**
- **Self-efficacy Scale (Salanova & Grau (2003)**
 - **Measures regarding expectations and satisfaction about the treatment** (Adapted from Borkovec & Nau, 1972):
 - Expectations and satisfaction: Patient
 - Expectations and satisfaction: Therapist
- **Measures related presence and reality judgment: Slater, Usoh & Steed questionnaire, SUS**

SADNESS

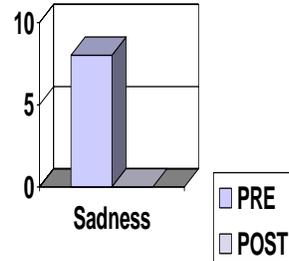
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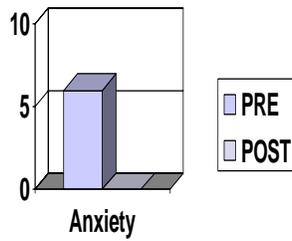


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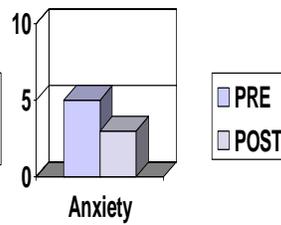


ANXIETY

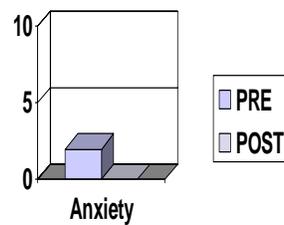
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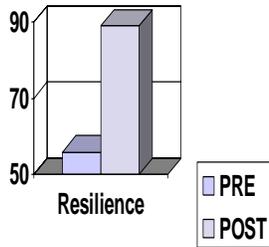


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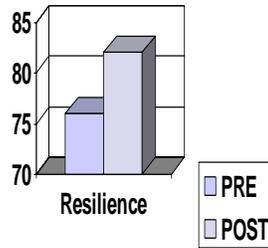


RESILIENCE

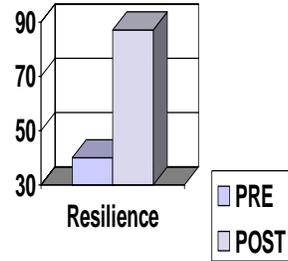
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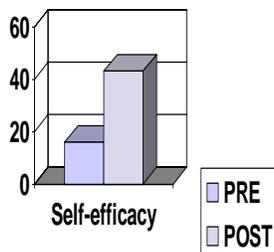


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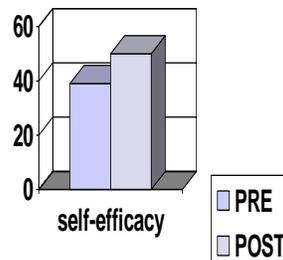


SELF-EFFICACY

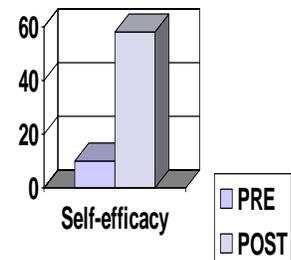
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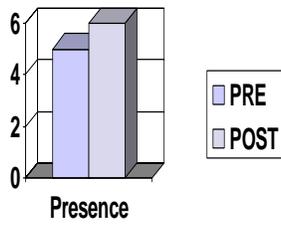


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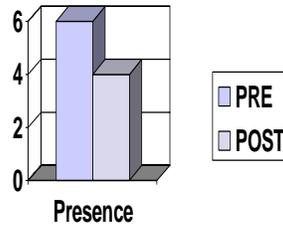


PRESENCE

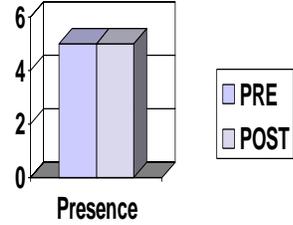
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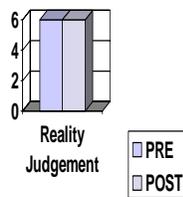


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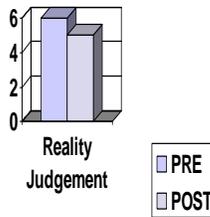


REALITY JUDGMENT

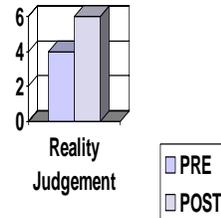
PARTICIPANT 1



PARTICIPANT 2



PARTICIPANT 3



CONCLUSIONS

- *The treatment, using EMMA's world offers effective tools for the treatment of these three patients*
- *It is only a series of case studies, at this moment we are applying this treatment in a controlled group study.*
- *3 treatment conditions:*
 - *Traditional treatment: a brief treatment using cognitive-behavioral strategies*
 - *Our treatment protocol without EMMA's world*
 - *Our treatment protocol with EMMA's world*

CLOSING REMARKS:

- **"Treatment is not just fixing what is broken, it is nurturing what is best".** (Selgiman &.Csikszentmihalyi, 2000)
- VR may help to achieve this goal
- The aim of VR is not necessarily to "recreate" the reality, but to achieve virtual environments **relevant and significant** to the person.
- The important point is to develop **therapeutic contexts and devices**
- Which help the person to **confront** his/her problems, and **open his/her future** and the possibility of living his/her life in a more satisfactory way





THANK YOU VERY MUCH
FOR YOUR ATTENTION.