USING "TRADITIONAL" STRATEGIES IN A "VIRTUAL WORLD" FOR THE TREATMENT OF PATHOLOGICAL GRIEF

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GRIEF

- *GRIEF is a painful, but unfortunately common experience.*
- *However, there are marked individual differences in how people grieve*
- *Unfortunately, the bereavement literature has not a clear and common definition on grief, on its normal and abnormal course and manifestations*
- *According to the DSM-IV: bereavement is a stressor that produces relatively normal and expectable distress*
- *DSM-IV does not offer a complicated grief diagnosis*

PATHOLOGICAL GRIEF (NEYMEYER, 2003)

- *Criteria A:*
  - Death of a beloved person
  - Intrusive worry, grief for the lost person

PATHOLOGICAL GRIEF (NEYMEYER, 2003

- *Criteria B:*
- *As a reaction to the loss, intense and persistent symptoms:*
  - Efforts to avoid all things that remind the lost person (thoughts, people, etc.)
  - Consider the future as purposeless and useless.
  - Numb, affect dissociation, lack of emotional response (∗)
  - Feel shocked
  - Difficulties to believe and accept the death (∗)
  - Feelings of emptiness and meaningfulness life (∗)
  - Difficulties to imagine future life without the loss person (∗)
  - Feel that a part of oneself is dead (∗)
  - Destruction of the world view (loss of control sensation, loss of self-confidence)
  - Experience those symptoms the lost person experienced (∗)
  - Excessive irritability, rage, bitterness,

PATHOLOGICAL GRIEF (NEYMEYER, 2003

- ***Criteria C:***
  - At least two months (6 months better)
- ***Criterio D:***
  - Significant difficulties in the social functioning, work, and other areas.

PATHOLOGICAL GRIEF: TREATMENT OBJECTIVES

Addresed to

- *Avoidance and not acceptance of thoughts, images, feelings, emotions, associated to the loss experience*
- *Problems of lack of meaning or negative meaning related to loss experience*

With the purpose of

- *Help patient to process the recalls associated to the loss experience*
- *Help to understand and find alternative meanings to the loss experience (“learning from that experience")*

EMMA: Main Objectives

- TO STUDY THE RELATIOSHIPS BETWEEN PRESENCE AND EMOTIONS.
  - To design and validate “Mood devices” via VR
  - To assess the effects of “Mood devices” on the sense of presence
  - To assess the effects of presence-enhancing technologies on feelings and moods in mediated experiences.

- TO DESIGN THERAPEUTICAL APPLICATIONS USING VR THAT FACILITATE AND ENHANCE THE EMOTIONAL CHANGE PROCESS.

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 to 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

OBJECTIVES OF EMMA VE

- *Tool based on VR techniques that allows :*
  a) To represent physically (in a personalized way) the meaning of the event and the emotions associated to it
  b) manipulate/modify the meaning of the emotional experience (space-time)
  c) Face to the person to “emotional” event
  d) induce, amplify and change moods associated to the “emotional” event
- *For that, EMMA offers a VR that helps to:*
  a) Represent (reflect) the event and the emotions associated to it
  b) Represent the changes in the meaning of the experience and emotions associated along patient is elaborating them.

TREATMENT COMPONENTS

(following guidelines by Neimeyer, 2002):

- Psychoeducation
- **Elaboration/Processing (with EMMA tools)**
- In vivo exposure
- Acceptance/mindfulness techniques
- Breathing training.

- 12 weekly sessions (90 min)

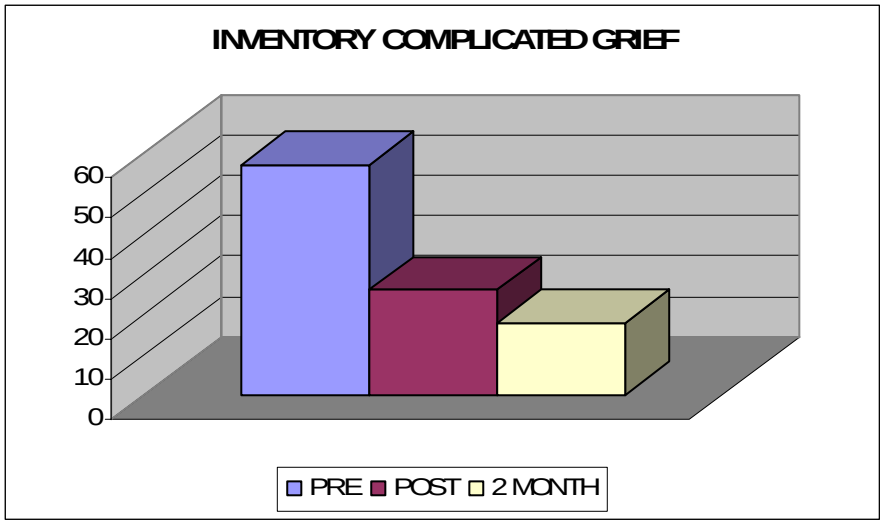
ASSESSMENT PROTOCOL

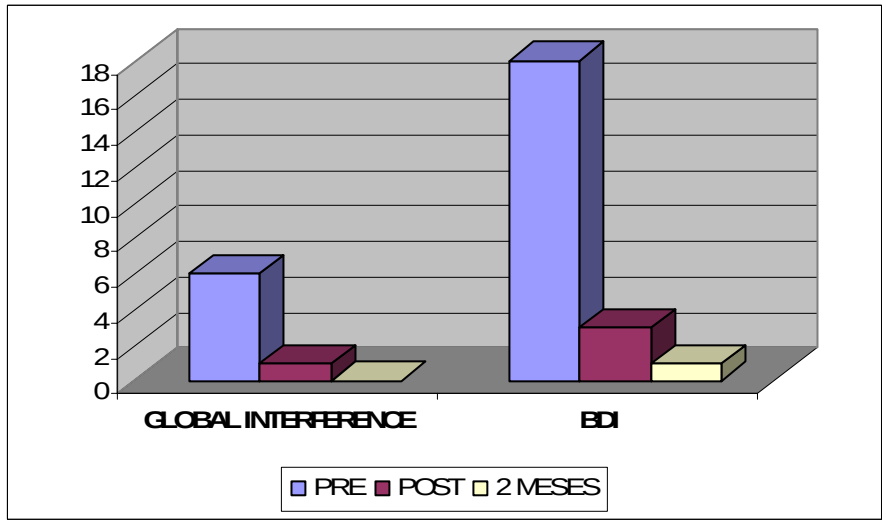
- ***Inventory of Complicated Grief (ICG)*** *(Prigerson et al., 1995).*
- ***Fear/emotional distress and avoidance scales*** *(Adapted from Mark & Mathews, 1979).*
- ***Catastrophic thoughts.*** *related to the loss experience in the target behaviours or situations*
- ***Emotional processing measures.*** *Pre-post elaboration sessions*
  - to which extend they considered they were emotionally disturbed by the loss event,
  - to which extend they were prepared to accept and integrate that event in their life,
  - to which extend they believed they were processing that event, and
  - to which extend they were open to new experiences in the future.

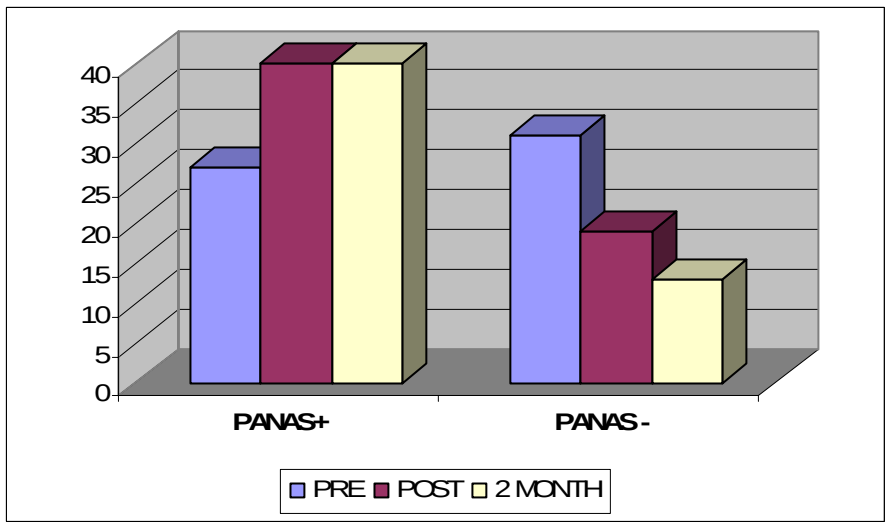
ASSESSMENT PROTOCOL

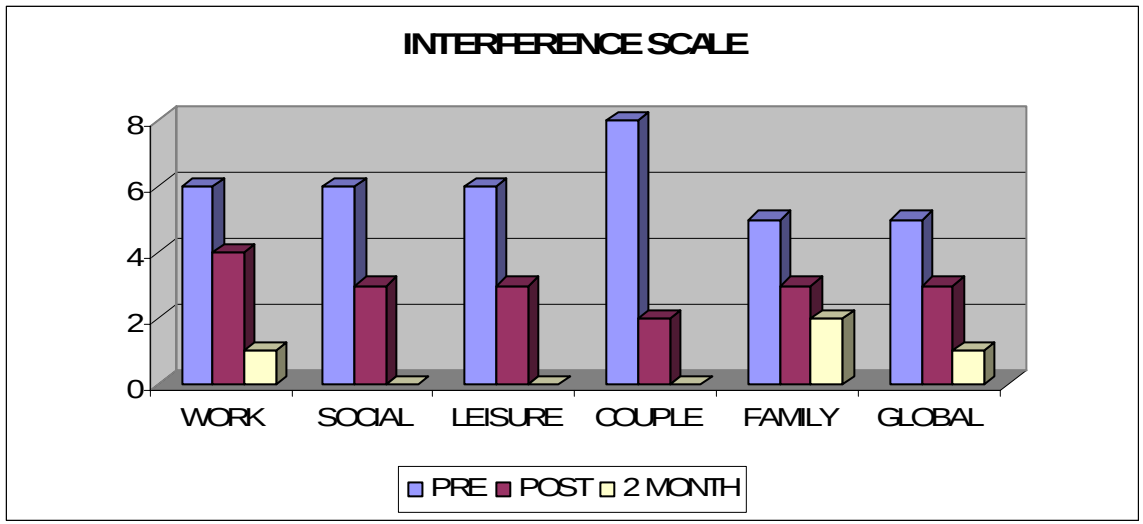
- ***Measures related to anxiety, depression, and other emotions:***
  - **Positive and Negative Affect Scales (PANAS)** (Watson, Clark & Tellegen, 1988)**.**
  - **Beck Depression Inventory (BDI)** (Beck, et al, 1961).
  - **Visual Analogue Scales to measure emotions** (anxiety, sadness, anger, etc.).
- ***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
- ***Measures regarding expectations and satisfaction about the treatment*** *(Adapted from Borkovec & Nau, 1972):*
  - **Expectations and satisfaction: Patient**
  - **Expectations and satisfaction: Therapist**

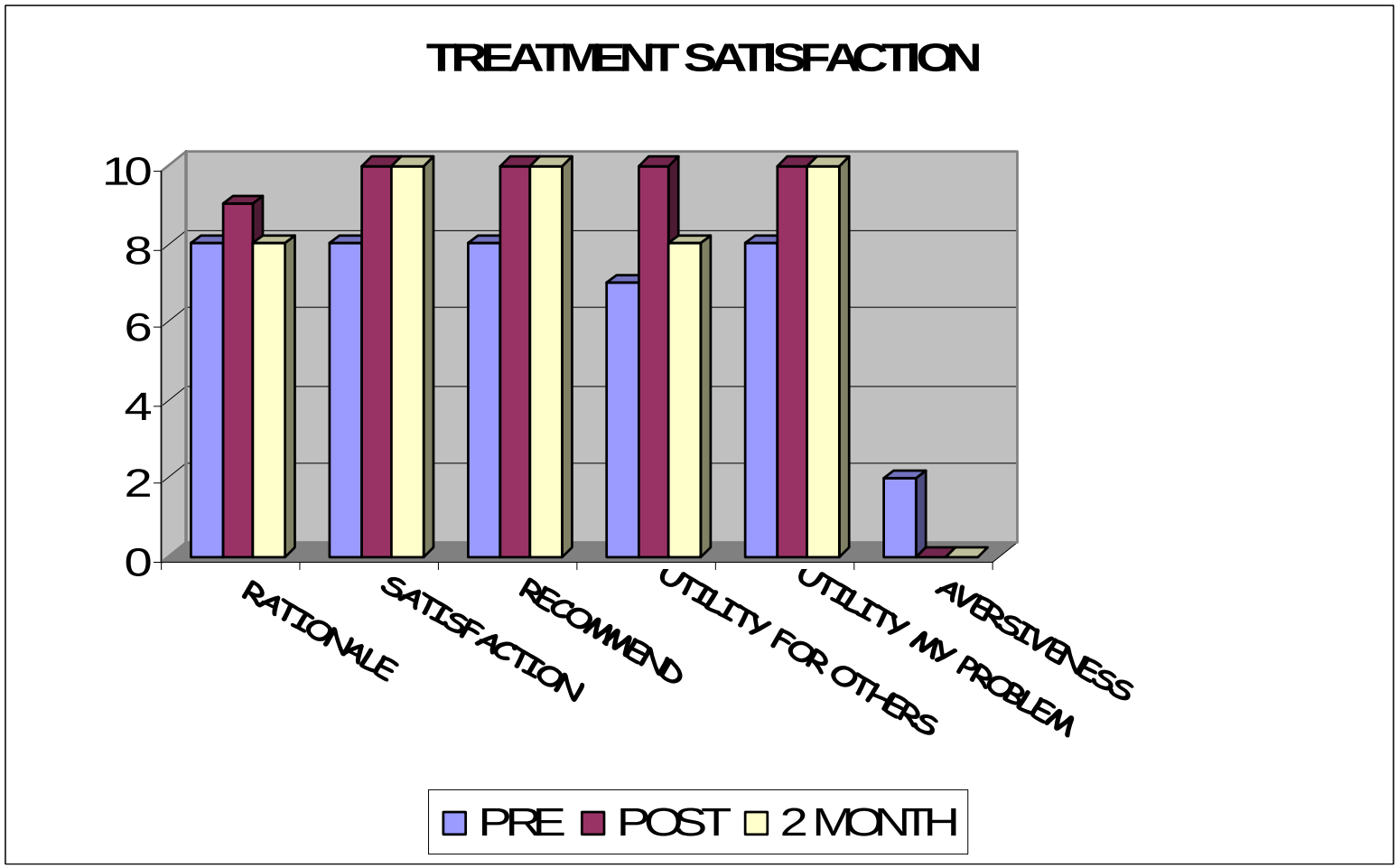
PATIENT

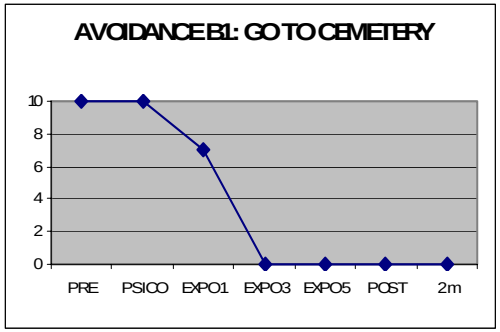

INVENTORY COMPLICATED GRIEF
60
50
40
30
20
10
0
PRE
POST
2 MONTH

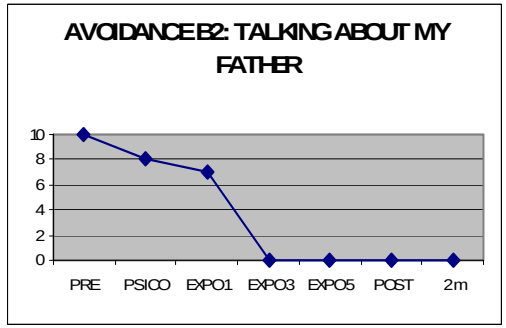

18
16
14
12
10
8
6
4
2
0
GLOBAL INTERFERENCE
BDI
PRE
POST
2 MESES

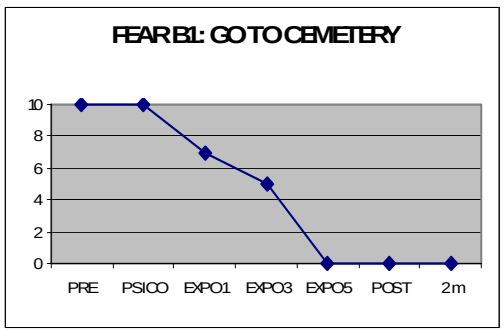

40
35
30
25
20
15
10
5
0
PANAS+
PANAS -
PRE
POST
2 MONTH


INTERFERENCE SCALE
8
6
4
2
0
WORK
SOCIAL
LEISURE
COUPLE
FAMILY
GLOBAL
PRE
POST
2 MONTH


TREATMENT SATISFACTION
10
8
6
4
2
0
RATIONALE
SATISFACTION
RECOMMEND
UTILITY FOR OTHERS
UTILITY MY PROBLEM
AVERSIVENESS
PRE
POST
2 MONTH


AVOIDANCE B1: GO TO CEMETERY
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


AVOIDANCE B2: TALKING ABOUT MY FATHER
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


FEAR B1: GO TO CEMETERY
10
8
6
4
2
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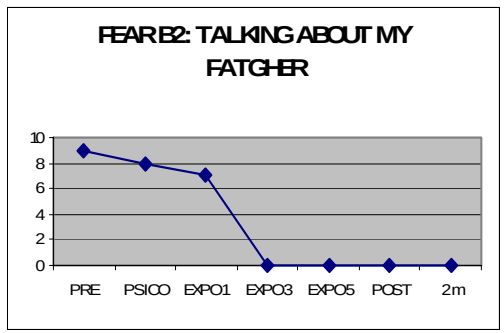
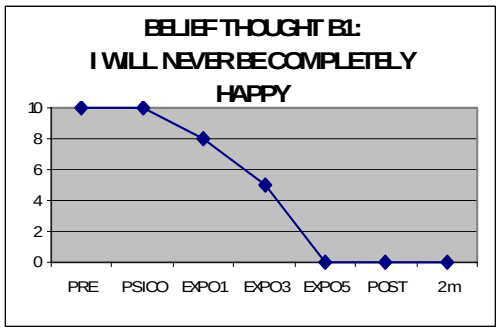
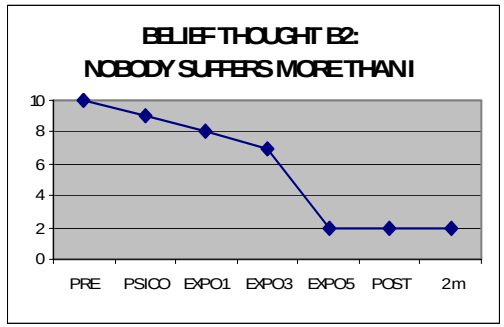
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


FEAR B2: TALKING ABOUT MY FATGHER
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


BELIEF THOUGHT B1:
I WILL NEVER BE COMPLETELY HAPPY
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


BELIEF THOUGHT B2:
NOBODY SUFFERS MORE THAN I
10
8
6
4
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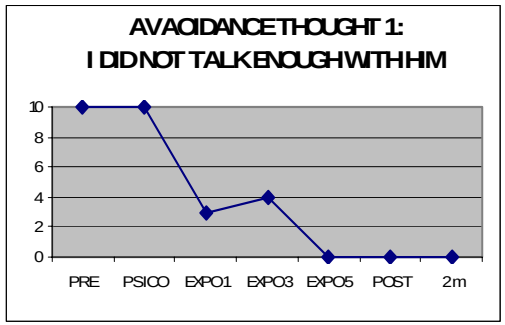
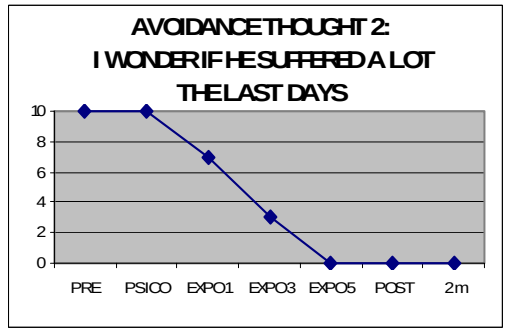
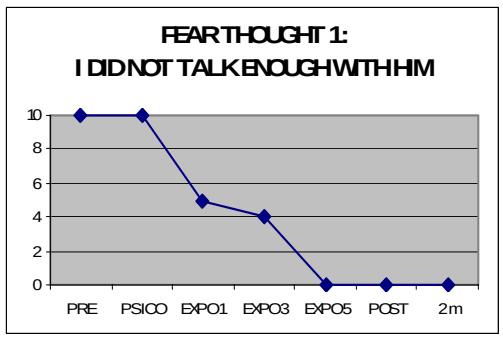
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


AVACIDANCE THOUGHT 1:
I DID NOT TALK ENOUGH WITH HIM
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


AVOIDANCE THOUGHT 2:
I WONDER IF HE SUFFERED A LOT
THE LAST DAYS
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


FEAR THOUGHT 1:
I DID NOT TALK ENOUGH WITH HIM
10
8
6
4
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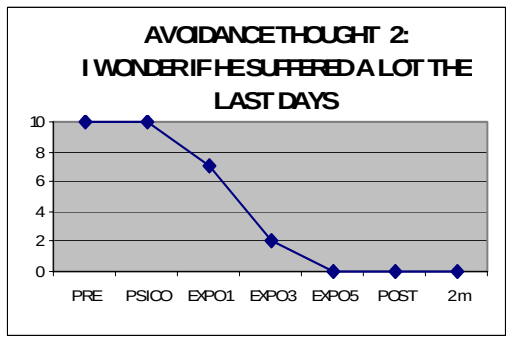
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m


AVOIDANCE THOUGHT 2:
I WONDER IF HE SUFFERED A LOT THE
LAST DAYS
10
8
6
4
2
0
PRE
PSICO
EXPO1
EXPO3
EXPO5
POST
2m

CONCLUSIONS

- EMMA's world offers efficacious and effective tools for the treatment of this patient

- Important improvement in patient 's evaluation about several aspects regarding the loss (degree of disturbance, acceptance, being open to new experiences in life),

- Patient reported being less perturbed, she accepted better the stressful event, and she was more open to new experiences in her life.

- It is only a case study, at this moment we are applying this treatment in a controlled group study.

CLOSING REMARKS:
EMMA'S WORLD: AN "OPEN VR SYSTEM"

- The goal 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

- EMMA's world is a VR application very **adaptable** which allows being **individualized** for each person

CLOSING REMARKS:
EMMA'S WORLD: AN "OPEN VR SYSTEM

EMMA's world provides a "timeless space" where the emotional experiences are activated. In this timeless space the person is supported by the therapist and the global space reflects her/his emotions and the possibilities of the future.

THANK YOU FOR YOUR ATTENTION.