Integrated diagnosis and therapy for stroke patients: a clinical case study

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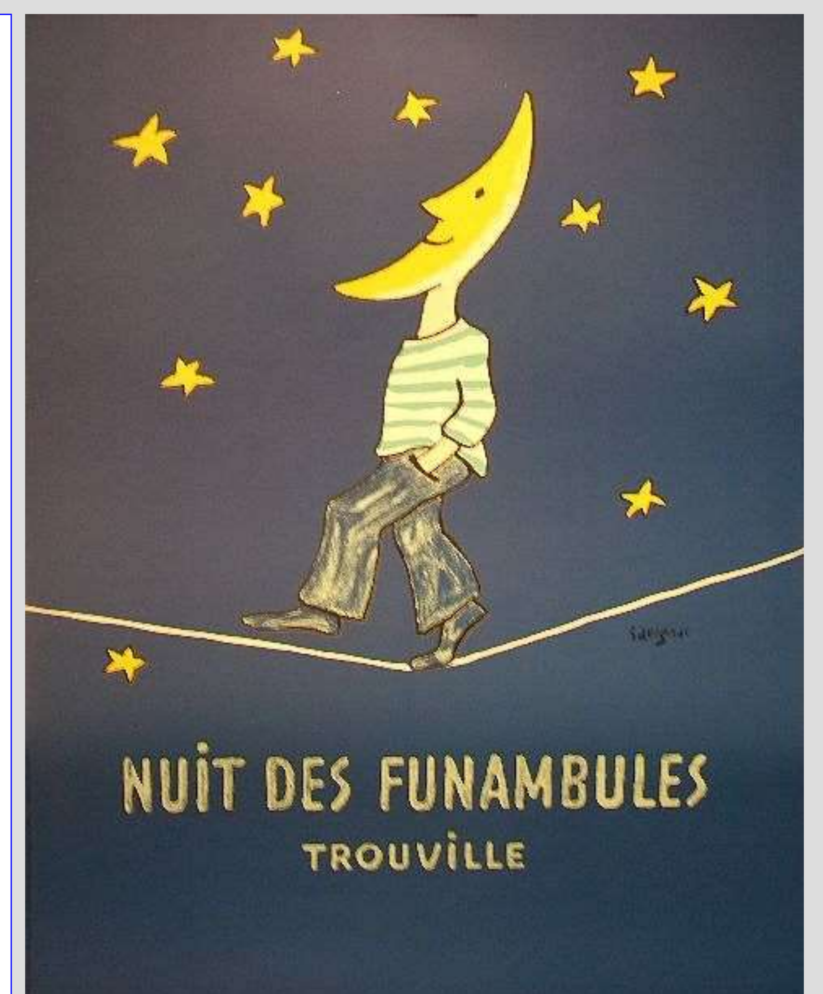

Introduction

The biopsychosocial reintegration of stroke patients requires that both their diagnosis and therapy be based on a multidisciplinary and integrated interprofessional approach. In addition to medical, physical and environmental care, appropriate psychological intervention is also required. Recent studies in the field of neuropsychoanalysis have evidenced the psychodynamic approach to the organisation of the Self as a fundamental element of the therapy (Solms and Turnbull 2002). Moreover, neuroscientific research enlighten the links between activations and dysfunctions of the neural networks and basic emotions, defence mechanisms and empathic phenomena (Panksepp 1998; Gallese, 2005; Northoff et al. 2007).

The aim of this study is to outline the effectiveness of an integrated diagnostic and therapeutic intervention by means of a clinical case study in the neuropsychonalitic perspective.

The case report

F. is a man in his late forties suffering from stroke (one month before the income in the rehabilitation hospital)

CT-Scan: right subarachnoid pancisternal hemorrhagia with intraparenchimal sylvian hematoma from the rupture of aneurysm at the bifurcation of the medial cerebral artery

He presents:

- Severe left hemiparesis by Physiatric assessment with FIM (Functional Independence Measure by Dodds et al., 1993): 44 income, 80 discharge

- Left extrapersonal neglect without other deficits in cognitive functioning by Neuropsychological assessment

- Anosognosia for hemiparesis and for impairment in daily activities by clinical Physiatric, Neuropsychological, Psychological assessment.

At the beginning F refuses any sort of therapy; but he requires health service rehabilitation treatment as an in-patient: public service hospital treatment is better because he needs a lot of assistance. He cannot afford private treatment and he lives in a somewhat isolated environmental and without social support.

Psychotherapic approach, allows him to accept the physioterapic, psychopharmacological and neuropsychological treatments (two months as impatient). He asks for an anticipated outcome but he accepts to continue treatments in a public rehabilitation center in a day-hospital where he asks for a psychological support.

Personal History and Life Events

He is an only child educated to secondary school level. He describes himself as a concrete person, with little imagination, he adds that he is direct and sincere, but has always had to pay the consequences for this.

At the moment of the stroke he is living with his elderly parents (with whom he has always had a difficult and argumentative relationship), where he has been living for about a year after finishing a live-in relationship (also due to conflict). His main duty at home was as carer to his father, seriously ill and disabled following a stroke. He is overqualified for his job, working as a delivery man, but this role keeps him out of trouble, particularly with authority figures. He has various interests but few friends he trusts.

The main reasons given for the conflict with his parents are:

- the character of his father, who has had episodes of alcoholism.

- His mother's lack of trust and support when asked to recognise the need for psychiatric treatment for his father, as well as the strong disapproval shown towards all his sentimental relationships.

With his ex partner:

disagreement above all on how to bring up one of her children (said to be "difficult"), with whom he wanted to fulfil a paternal role.

The following can be considered **Life Events:**

- the worsening of his father's health and his hospitalisation three months before the onset of F's stroke

- the break-up with his partner about a year before his stroke.

Clinical Psychological, Psychodynamic Assessment (at the income)

State of agitation with paranoid manifestations.

Pre-morbid personality organization: traits in Cluster A (DSM – IV axis II)

Prevalent emotion expressed: anger.

Fear (of forsaking and refusal) and sadness might be "unrepressed" unconscious emotions

Defensive style with prevalence of denial and immature defences. Externalisation processes more prevalent than internalisation processes.

Relational style characterised by a high degree of ambivalence: affirms need for autonomy while denies the need for protection and dependence.

It might be supposed that there were dysfunctional dynamics in the early phases of the organisation of the Self, in particular in the individualisation–separation phase and abnormalities in the Self–object relationship.

Psychometric evaluation

Affective Neuroscience Personality Scales (ANPS) (Kenneth et al., 2003)

Basic	Seek	Care	Play	fear	Anger	Sep.D.	Sp	faking	**Positive Emotions**	39
Emotions	31	59	40	48	60	44	43	61	**Negative Emotions**	51

Defence Style Questionnaire (DSQ) (Bond, M.P., 1995; Martini et al., 2004)

Boldface characters indicate defence mechanisms with abnormal scores.

Immature defences are prevalent (maladaptive style)

	Scale	Ref. Mean	Ref. SD	Score	Z	Prob
1	***Acting Out***	***3,52***	***1,77***	**6,8**	**1,853**	**0,03**
2	*Affiliation*	*2,79*	*2,05*	2,5	0,141	0,44
3	*Undoing*	*2,67*	*1,67*	3,3	0,397	0,35
4	*Anticipation*	*4,86*	*2,01*	8,0	1,562	0,06
5	*Passive Aggressive*	*2,74*	*1,47*	3,0	0,177	0,43
6	*Consumption*	*1,94*	*1,67*	4,0	1,234	0,11
7	*Denial*	*1,80*	*1,29*	3,5	1,318	0,09
8	*Fantasy*	*4,52*	*2,87*	6,0	0,516	0,30
9	*Reaction Formation*	*2,80*	*1,60*	1,8	0,625	0,27
10	***Primitive Idealization***	***3,14***	***2,29***	**7,5**	**1,904**	**0,03**
11	***Projective Identification***	***0,98***	***1,86***	**6,0**	**2,699**	**0,00**
12	*Inhibition*	*2,96*	*1,72*	4,6	0,953	0,17
13	***Isolation***	***3,10***	***1,65***	**7,5**	**2,667**	**0,00**
14	***Help Rejecting Complaining***	***2,22***	***1,97***	**7,3**	**2,596**	**0,00**
15	*Omnipotence*	*2,71*	*1,61*	3,3	0,387	0,35
16	*Task Orientation*	*4,87*	*2,37*	7,5	1,110	0,13
17	***Projection***	***1,62***	***1,06***	**4,7**	**2,874**	**0,00**
18	*Pseudo-Altruism*	*5,69*	*2,10*	8,0	1,100	0,14
19	*Regression*	*2,30*	*2,02*	5,0	1,337	0,09
20	*Suppression*	*3,94*	*2,08*	1,0	1,413	0,08
21	***Withdrawl***	***4,56***	***2,05***	**8,0**	**1,678**	**0,05**
22	***Splitting***	***3,45***	***2,09***	**7,0**	**1,699**	**0,04**
23	*Somatization*	*1,97*	*2,09*	3,0	0,493	0,31
24	*Sublimation*	*2,05*	*2,65*	1,0	0,396	0,35
25	*Humor*	*4,69*	*1,84*	6,0	0,712	0,24

Relationship Questionnaire (RQ) (Bartholomew, Horowitz, 1991) : **Fearful-Avoidant style** is characterized by the following description: "I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others."

Attachment Style Questionnaire (ASQ) (Feeney et al., 1994; Fossati et al., 2003). Confidence=36; **Discomfort with Closeness = 43**; **Relationship as Secondary= 22**; Need Of Approval = 16; Preoccupation for relationship= 33 : **Dismissing Style** (but see Conf. score)

Hospital Anxiety and Depression Scale (HAD) (Zigmond and Snaith, 1983): Income: Anxiety = 9 (low); Depression = 10 (low). Discharge: Anxiety = 9 (low); Depression = 8 (low): **Low anxiety and depression scores**

THEMATIC APPERCEPTION TEST (T.A.T.)

(Murray, 1943; Cramer, 2006)

Card: 1, 2, 3 BM, 4

The task is: "Tell a story based on this picture, considering what the characters are thinking, feeling and doing. What was happening before this moment and what will happen later?"

The reaction shows fundamental difficulties with and unconscious refusal to doing the test. He coughs, blows his nose, holds the card for as little time as possible, his stories are very short and after each card he places it as far away from himself as possible, while taking off his glasses.

Card 1

I can see a boy sitting with a toy rifle in front of him, I can't tell if he's talking on his mobile or something else he seems quite serious and worried this boy. He has a white and quite large sheet of drawing paper, I haven't the slightest idea what could happen next because I'm not very imaginative……..

Card 3BM

Here there's a woman who's crying near something which looks like a bath or a coffin. On this thing is lying a human figure, it could be a dead body judging by how this person is crying…. then I don't know….

Denial is the main evidence (Cramer, 2006)

Does neglect influence the perception of the pictures?

F's relationship with his mother

F's care giver is his mother, an elderly lady, severe, physically full of tremors, but lucid and determined. In the past she suffered from serious depression following the loss of her parents and a brother. She is still taking anti-depressants prescribed by her GP. She categorically refuses psychological interviews, which she views as deeply destabilising.
F restores a profoundly regressive relationship with his mother, based on her looking after him. F allows himself to be looked after like a child, complaining about everything she does. His mother seems to suffer but controls everything. It is impossible to establish any sort of contact or communication with them during one of their care rituals, especially in his hospital room. During the interviews he manages to convey this difficulty with the relationship with his mother, but he ascribes all the responsibility to her (like a child).

The psychotherapeutic relationship

The first meeting (in his hospital room where he has just arrived) with me as the hospital clinical psychologist goes more or less like this. "… How are you?". He quickly answers, "Fine! and that's why I want to go home .. immediately!" I reply that he will be able to go home, but not immediately as he needs treatment. "You said I can't go home; I'll call my lawyer and you'll all be reported for kidnapping." He takes out his phone and makes a show of phoning. I reply that this is not exactly what I said, but that if he wants to make a phone call I'll come back later. "All right then, stay... I'll phone later…"

That was the beginning of hours and hours of interviews (during about two months) in which he is angry and repeats that he doesn't need a psychiatrist, that his father needed a psychiatrist, but that his mother didn't want this and never had any faith in him, and if now he's in this condition, it's all their fault. Often he repeats: "I was like this before too, I'm just like I was before." (Always accompanied by an abrupt and decisive hand gesture.) "Please don't think that I've got anything against you.." He never asks for a psychological help, but he is less collaborative without a psychological support.
An unexpected phone call : after about a month from his discharge, he calls me, unexpectedly, and says, "In your opinion, can they remove the limitations from my driving licence?" So we talk a bit about how he is.

…in the health workers groups

Several group meetings (with a **group-analytic approach)** of the workers (mainly physioterapists) involved have been necessary to discuss the case and integrate the various treatments. Especially in the initial phase, the physiotherapists report difficulty in empathising with the patient, giving him little reward for his progress. The difficulty in the relationship with the patient is reflected by the difficult communication within the group: the emerging emotional resonance and mirroring results in a tendency to splinter the group.

…a significant step

Perhaps, in order to make up for a few relational shortcomings experienced in his dealings with the physiotherapists, I call him to one interview after another in which his progress in rehabilitation comes up and with emphasis I tell him about his progress. He starts crying like a child and has trouble consoling himself. "You tell me this good news... I'm glad to hear it." But there seems to be a sharp contrast between what he says and what he feels... It seems as though he can tolerate being ill, being dependent, needing help and comfort. (Ramachandran, 2004; Turnbull, 2005) Over the next few days his relationship with the therapists also improves but he doesn't give up his demand to be discharged on "his own terms".

Conclusions

In the clinical case here discussed, Anosognosia for hemiparesis and disabilities is considered in the context of subjective experience of the patient.
A prevalent paranoid organization characterizes communication, behaviour and relationships of the patient. This configuration of the reorganization of the Self, even though dysfunctional, protects the Self by disruption, preserves an adaptive aim and is in line with pre-morbid psychological characteristics.
Clinical and psychometric analyses reveal that the patient defence mechanisms (DSQ and TAT) are prevailingly immature with dysbalance of the externalization/internalization processes, the attachment style (ASQ, RQ) is fearful, HAD anxiety and depression scores are low and negative emotions (ANPS) are prevalent.
Lesion location (Gainotti, 1972; Berti et al., 2005; Frassinetti et al., 2008) should be considered in a neuropsychoanalytic perspective (Solms and Solms, 2000; Ramachandran, 2004; Turnbull O.H., 2005), which underlines the close relationship and the reciprocal influence among physical, cognitive, emotional and social factors that, as a whole, constitute the Self (Northoff, 2006).
The integrated diagnostic and therapeutic approaches point out the fundamental importance of emotions in communicating and organizing the field of interpersonal relationships, which is the main context of any sort of therapy and treatment.
Furthermore, the psychodynamic psychotherapy may have had a role in initiating a change (with a reduction of denial) by the cognitive-emotional modulation of internalization/externalization processes (Northoff, 2006, 2008).

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