

The review of the Italian association of psycho-neuro-endocrine-immunology

Edited by Francesco Bottaccioli

PNEI NEWS

The new knowledge of science and health

**Psychological care in the hospital:
A clever way to save pain, money and create employment for young psychologists.
Will someone please inform Mr. Letta?**

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Page 10. Meeting the needs of people

The recent Balduzzi Decree excludes psychological care at the hospital. The paradox is that this action was meant to provide an appropriate quality and humanization of the therapies. Now the responsibility is again up to the Government. This is a battle to defend and relaunch the role of the psychologist in a structure where medical drugs are administered but no care.

David Lazzari

Page 14. The psychologist is needed by citizens in the hospital and at home.

Cittadinanza attiva (active citizenship movement) is engaging in order to obtain psychological assistance provided by the National Health Service for the chronically ill and rare diseases patients. This care should also be guaranteed and nationally unified in all its forms such as hospital and local care services.

Tonino Aceti

Page 16. The long and difficult way of psychological care inside the hospital. Now we can not go back.

In the last years we have assisted to a gradual integration of psychological care in the hospital main diagnosis-therapy services. All this work has been sanctioned in the Guide Lines of Health Legislation. Ignoring it is simply absurd.

Elena Bravi

NEW MEDICINE

Page 18. Sentry medical doctors: a network of doctors who are engaged in identifying the environmental causes of diseases.

Whether or not the doctors were inspired by reading Ian Fleming or Edmondo De Amicis, the result of this idea lead to a network of professionals who inform each others about cases which are or could be related to an environmental etiopathogenesis.

G.Porcile, P.Lauriola, R. Romizi

Page 21. Integrating is better and more effective.

A survey on costs and citizens' satisfaction.

Positive results have been achieved during the first years of activity of Pitigliano Hospital, the first one in Italy where therapies are integrated. This is an important resource where the National Health Service becomes sustainable and also effective in coping with the increase of chronic diseases.

Simonetti Bernardini

EDITORIAL

Mice do not blush

Human beings and animals: A comparison of their emotions and brain.

Francesco Bottaccioli – Sipnei Honorary President

The relationship between emotions and health is again in the limelight showing its more practical side: psychological care at the hospital. This matter was totally overlooked by the previous government who acted by simply ignoring the existence and the work of thousands of health operators engaged in this field.

Our dossier shows how short-sighted (and offensive) is this vision of health. Providing psychological care at the hospitals and within the local structures is not a luxury, it is a necessity if we want to improve the effectiveness of the therapies and therefore reduce the costs of hospitalization, medical drugs and assistance for chronically ill patients.

The alternative is very blunt: either dismantling the hospitals and the minimum home healthcare that is left or finding a way to spend less by reducing the number of chronically ill people and the length of hospitalization with its resources. The first option was implemented by Margaret Thatcher's government. In this case money is saved on a short term basis while on the middle-long term basis the situation in public health degenerates drastically adding more pressure on the State due to the spread of health conditions that are far below the levels of decency and social sustainability. The second option instead triggers a virtuous circle whose direct effect is to employ a large number of young psychologists.

This is a bright and at the same time obvious idea and it is based on science and evidences of effectiveness as the articles published in our dossier prove. As Pnei researchers we should continue to investigate on emotions starting from their fundamental relationship with the brain. In this issue, on the trail of a global consideration based on observing animal testing, Andrea Sgoifo and Luca Carnevali show that in mice the difference between a condition of physiological disturbance of the stress axis homeostasis and a pathogen condition (here the term stress is proposed in order to distinguish it from the first one defined as "eustress" by Hans Seyle) lies in the animal's expectation. Sudden and unexpected stressors have a more disrupting effect than the expected and therefore somehow controllable stressors. This is obvious to see especially when the stressing situation ends up well with a reward. We have several evidences that in human beings too the stress of the winner (a candidate passing an exam, a worker being rewarded) has not only a subjective but also a biological profile (in terms of stress, sexual and reward hormones) which is very different from the defeat, dissatisfaction, and humiliation one.

This seems to fully confirm the proposal from Jaak Panksepp's research published in this issue's interview. According to Panksepp¹, human emotions are actually inherited from animal evolution. It is not by chance that they are located in the deep areas of the brain: in the brainstem and the limbic system. The scientist continues and admits that there is then a human level, a third and last

layer of that multi-level building which is our brain, the layer which tries to control the primitive emotional circuits, our archaic mind.

In the future we will talk more extensively about these themes that play such an important role in neurosciences. At present I would like to underline that the model adopted by Panksepp is the dated triune brain one proposed by MacLean and later appropriately defined by Michael Gazzaniga as the theory of the evolutionary train. As we evolve, we add a level, just like a carriage gets added to a train². Actually there is no evidence that the brain works this way. Indeed with the growing use of neuroimaging we are gathering more and more evidences that the brain works through integrated cortical and subcortical circuits and this involves structural and functional influences at all levels of the circuits. For instance, changes in the amygdala generate changes in the medial prefrontal cortex which is connected to the circuit of emotions and vice versa. Recently Eva Jablonka and her team at the Cohen Institute in Tel Aviv have advanced the idea that language evolution should be investigated together with the emotional circuits³.

The hypothesis is that the control of emotions has evolved together with the control of manuality and of the language. In its turn the language, social communication, did not only allow a reinforcement of emotional control but created new emotions: social emotions. Darwin had identified them as being typically human, though they were in a continuity line with those of the animals⁴. Mice do not blush. This means that we can not put emotions under the stairs (mice kingdom) and cognition at the higher floor (human kingdom). The two levels are interconnected, they mark each other reciprocally and become human.

1 Panksepp J. *The Archaeology of Mind*, Norton, New York 2012

2 Gazzaniga M. *Who is in charge? Free will and the Science of the Brain*.

Chi comanda? Scienza, mente e libero arbitrio, Codice, Torino 2012, p. 30

3 Jablonka E. et al., The co-evolution of language and emotions, *Phil. Trans. R. Soc. B.* 2012; 367: 2152-2159

4 Darwin C. *The Expression of Emotions in Man and Animals*

L'espressione delle emozioni, edizione definitiva a cura di P. Ekman, Bollati Boringhieri Torino 1999