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EDITORIAL

New trends in anxiety disorders

Anxiety disorders are the most prevalent and economically burdensome of all psychiatric diagnoses, yet they are among the most commonly misdiagnosed and undertreated.[1] The experience of anxiety has a universality that extends across times and cultures. Only in the past few decades have scientists been able to develop rigorous diagnostic schemas to improve clinical and basic research data on anxiety disorders.[2] Over the last five years, however, research in the field of anxiety disorders is growing in such a rapid pace that an up-to-date supplement is just one tool in our effort to keep research results within reach of readers in the area.[3]

Anxiety disorders are not a problem of our time: several literary reports and antiquity myths demonstrate that symptoms of what we name anxiety disorders nowadays were observed long ago. Maybe one of the oldest examples lies in Greek mythology – the god Pan. He was responsible for anxiety and was the origin of the term "panic".[1] In several stories, Pan is reported to cause fright, screams, fears, terror and suffering. Like other woodland gods, he was feared by those who had to go through the forest, because meeting one of these deities could provoke overwhelming and irrational fear, for no reason at all, or what was known as "panic terrors" or "panic attacks". The fear of meeting Pan again and of being startled once more made travelers stop journeying through roads and avoiding going to the market (in Greek, *ágora*), thus developing agoraphobia (fear of large open or public places).[1]

Paradoxically, anxiety is a complex and useful mental function.[2] It generates a range of behaviors that occur in response to any threat. During the last years, research into the phenomenology, pathophysiology, and neurobiology of anxiety disorders has grown so much that results translatable into clinical practice may offer hope and help to people with anxiety disorders.

The psychobiology of anxiety disorders is one of the most interesting and rewarding areas of contemporary medical research. At least three central neurotransmitter systems – noradrenergic, serotonergic, and gama-aminobutyric acid (GABA) - are acutely affected by certain pharmacological compounds that provide therapeutic benefit.[2] However, new neurotransmitter systems have also been discovered to underlie anxiety symptoms and disorders, such as the endocannabinoid system posing new challenges to investigators.[4]

The translation of neuroscience findings introduced new insights into the causes of anxiety and supported the development of novel psychosocial and pharmacological treatment approaches, besides leading to a better understanding of the interaction between genes and the environment. Animal studies have indicated that fear and anxiety-like states are mediated by structures that include the amygdala, hippocampus, prefrontal cortex, locus coeruleus, and periaqueductal gray matter.[2]

Today, the psychopharmacology of anxiety disorders has been leading psychiatry in the direction of biology. This biological perspective entails the consideration of anxiety within the framework of the evolutionist paradigm. Charles Darwin (1872), in *The Expression of the Emotions in Man and Animals*,[5] pointed the way for the search for adaptive value of behavioral and psychological processes. Anxiety and fear are rooted in the defensive reactions of animals, observed in response to the danger normally found in the environment. The interpretation of a stimulus or situation as dangerous depends on the nature of cognitive operations. In humans, cognitive factors acquire importance due to the intervention of the system of socially codified symbols, whether verbal or non-verbal. The behavioral responses to fear are accompanied by intense physiological alterations – physical symptoms – and changes in the emotional state.

The 21st century will probably be marked by the provision of genetic and neuroimaging data about panic and other anxiety disorders.[6] Anxiety symptoms seem to originate from a fear network with altered sensitivity.[2] Recent research on the physiological correlates of anxiety features has yielded remarkable findings concerning regional brain activity and structure in different neuroimaging studies.[6] It will also further our understanding of the sites of action of effective therapies.

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Over the last century the mysteries of anxiety disorders have been revealed through basic and clinical research, and patients who suffer from a frightening anxiety disorder can be sure that its diagnosis and efficient treatment are already part of everyday clinical practices. We have, however, to perfect these practices so that we can continue to improve our knowledge about these disorders.

This supplement of *RBP Psychiatry* shall bring up some different and challenging conceptions of anxiety disorders. We are proud to organize this supplement with an outstanding collection of contributions by experts in the leading edge of research in the field.

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