ANXIETY – HIDDEN STRENGTH OR POTENTIAL LIABILITY

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ABSTRACT

Anxiety is a two-faceted emotion. Within moderate parameters, it can offer us the motivation and strength to finish our tasks throughout the day. Feeling a little bit nervous, an increased heart rate or sweating are things that accompany us when we are faced with something that we consider important.

However, there are cases when functionality is altered. Individuals may not be able to control their negative emotions, thus leading them down a spiral towards the belief that there is no way of escaping the vicious cycle they have created for themselves. Some might feel bound by their anxiety, but unable to regain control of their emotions or change their state.

If we refer to children pathology, anxiety symptoms are perceived more intensely, as some of them have fewer coping mechanisms than in the case of adults. Frequently, they are too afraid of what will happen if they confront the fear of the unknown, having separation, social or performance anxiety.

This article aims to present the prevalence and the clinical features of children with anxiety disorders in particular, theories about anxiety, what tools we can use to make an adequate screening and some ideas on how the quality of life for these patients can be improved.

Keywords: anxiety disorders, functionality, anxiety theories, scale, quality of life.

INTRODUCTION

The manifestation of fear in dangerous situations is essential for all human beings in order for them to have the motivation of overcoming critical conditions.

Even public speaking or meeting new people is perceived by most people as a stressor event that triggers a "fight or flight response".

Physiologist Walter Cannon described in 1929 the "fight or flight response" as a reaction of the human body that acts as a means of protection in a situation that is perceived as being life-threatening. However voluntary the situation an individual places himself in might be, the fearful stimuli that influence the way in which our brains respond, are most often an involuntary action.

Fear is a trigger response to imminent hazard and is associated with hyper-stimulation, vigilance, terror, willingness to discharge and actions of avoidance. There is a strong connection between perceptual, biochemical and motivational processes in order to overcome dangerous situations [21].

In typical individuals, anxiety is a temporary emotional state, and its purpose is to help people prepare for future unpleasant events. It is manageable by self-coping approaches such as reconsideration, increased levels of attention and suppression. Hyper-vigilant persistence is a normal cognitive sensation after one experiences a prolonged and intense stressful episode [22].

Post-traumatic stress disorder is associated with an overstimulation of the

amygdala, despite the fact that there are fMRI studies that show an under-activation of the prefrontal cortex which inhibits fearful reactions in the case of post-traumatic stress disorder. That is the reason why an individual can not control their feelings [23].

Pathological anxiety appears when defensive behaviours do not function accordingly, and the person cannot cope with the overwhelming sensations that they feel. In other words, it is a disruption of the fear regulation system as it is presented in classical theories. Lately, researches indicate that abnormal anxiety appears because of both internal and external factors. External factors might be dispositional liabilities and negative environments [26]. If we refer to personality traits, the ones who manifest reduced assertiveness, difficulties in interpersonal communication, distress within the context of social issues, high levels of neuroticism, perfectionism such as those who do not believe in others' capabilities and prefer solving everything on their own, have been proven to be more prone to develop anxiety disorders [24], [25].

Throughout time, people have tried to understand what makes people resilient despite of stress, trauma or extreme natural calamities. Due to the fact that humans have a conditional response, which in fact is automatic, we are lead to believe that such a response is the only way of protecting ourselves leading us to stay longer within our comfort zone.

In many experimental studies, researchers have tried to better understand fear conditioning, one of the most studied fields when it comes to the origins of anxiety. Thus, they evaluated the results of a number of positron emission tomography (PET) and functional magnetic resonance imaging (fMRI) and observed the neuro-circuitry of fear and what the physiological responses to fear are [30].

For humans to adapt and thrive in an environment, event-outcome associations must be used, in order for them to consolidate their type of response and to transform conscious experience into memory. This way, they will instinctively know whether a situation is positive or negative for them and decide on the appropriate manner in which they will respond.

If we talk about synaptic connections, short-term memory involves changes in the glutamatergic neurotransmission, while long-term memory is associated with lasting changes in synaptic potentiation. Long term potentiation is possible if there are changes in gene transcription and protein synthesis. All of these processes take place in the amygdala and hippocampus and it has been proven in multiple studies that these are the areas involved in encoding and storing fearful memories, but they also hold importance in associative learning and memory [32].

Cognitive flexibility is the ability that we have to adapt to new situations and to handle them towards our own benefit. It is essential for a person to unlearn the link between a negative event and its consequences, no matter how biologically programed we are to do so automatically. Extinction – the gradual depression of a conditioning fear answer - implies increased sensitivity of glutamatergic NMDA receptors in amygdala. There are studies that show that blocking NMDA receptor (using antagonist like GABA) in association with exposure therapy is efficient in the treatment of phobias, obsessive-compulsive disorder or social anxiety [31].

It is well known that recently integrated memories are insubstantial and fragile, and they will not be cemented until going through a consolidation period in order for them to become permanent. Soeter and Vervliet discovered that if they administered oral propranolol (β-adrenergic antagonist) before bad memory reactivation the behavioural manifestation of fear disappeared within 24 hours.

EPIDEMIOLOGY AND THEORIES

According to Rapee and his collaborators, anxiety disorders are the most common psychiatric disorders in children and adolescence and its prevalence is 2%-17%. Unfortunately, ones diagnosed anxiety impacts children lifespan and alter its psychosocial, educational and career interactions [27].

In 2003, Costello et all concluded that 1 in 10 (9.9%) persons under the age of 16 suffer from one or more anxiety disorders throughout their lives [1]. This can dramatically change the quality of life of an individual, determine social withdrawal, academic failures and emotional distress that is very hard to handle. There is a high risk of develop comorbidity and complex pathologies, the most frequent being depression [2]. CDC reported that almost 7.1% of children aged 3-17 years have an anxiety diagnosis. If depression is present, there are at least 73.8% children that have comorbid anxiety (3 in 4 children aged 3-17 years). Practically, depression associates anxiety more frequently than anxiety associates depression, but there is a burden reported in both situations.

A study which took place between 2001-2003, conducted by Kessler Roland in the USA analysed the lifetime prevalence and the lifetime morbid risk of anxiety and mood disorders in the United States. Due to the impact that psychiatric diseases have on the quality of life of the patients, their will and their capacity of achieving everything that they want, this study brings valuable information and is of extremely high importance. To get a better accuracy of the matter, anxiety and mood disorders were evaluated with epidemiological surveys among people aged 13+.

The study evaluates the main DSM-IV mental disorders and was administered to all 9282 responders. In the end, after all the filters were applied, 5692 participants were left. The most frequent prevalence were the cases of major depressive episodes (29.9/8.6%), followed by specific phobia (18.4/12.1%), social phobia (13.07.4%), post-traumatic stress disorders (10.1/3.7%), generalized anxiety disorder (9.0/2.0%), separation anxiety disorder (8.7/1.2%), panic disorder (6.8/2.4%), bipolar disorder (6.8/1.8%). The least common occurrences were agoraphobia (3.7/1.7%) and obsessive-compulsive disorder (2.7/1.2%). Another result shows that the earlier median age-of-onset are phobias and separation anxiety disorder (patients between the age of 15 and 17) and the latest are panic disorder, major depression and generalized anxiety disorder (patients between the age of 23 and 30). The lifetime morbid risk is much higher than lifetime prevalent for most anxiety-mood disorders, especially major depression and generalized anxiety disorder [9].

An article from 1998 from the Divisions of Child Psychiatry – New York State Psychiatric Institute, coordinated by Daniel S. Pine, followed a prospective epidemiological study that evaluated the course of internalizing disorders, including various types of anxiety (phobias, social phobia, generalised anxiety, separation anxiety) and depressive disorders starting from late childhood and adolescence, until adulthood depending on age, gender and comorbidity. A selected sample of 776 young people were followed throughout the span of 9 years, and the data obtained was quantified using odds ratios generated from logistic regression analyses. Prior studies suggested that "internalizing" disorders are far more commonly maintained throughout the years in the case of girls than of boys. However, this study doesn't confirm this pattern; perhaps because the age group that it had followed is far too vast for an accurate estimation.

Adolescent anxiety or depressive disorders represent an approximate 2-to 3-fold increased risk of anxiety or depressive disorders in adulthood. Even if these disorders go to remission at one point, in many cases they re-emerge with the same intensity and fre-

quency. Thus, it is considered to be a strong risk for developing chronic disease burden. Taking this into consideration, it is important that services which prevent the evolution of these diseases and improve the quality of life of the patients must be developed and well maintained [10].

Within the psychiatric field, it is a well known fact that the cultural and socioeconomic background of a family influences their values and perceptions. Golda S. Ginsburg from University of Baltimore made a comparative study about phobic and anxiety disorders between Hispanic and Caucasian children aged between 6 and 17. The group that was studied was relatively equally divided and the results show that Hispanic children who came from low income families were more likely to have a primary diagnosis of separation anxiety disorder and were more fearful towards certain factors compared to Caucasian children. This data is limited due to the number of participants, and would need more extended research. What is known is that Hispanic values regarding the family as a defining factor of an individual's well-being and equilibrium, which promotes interdependence rather than independence, is a factor that makes a child more prone to anxiety disorders, especially separation anxiety. In addition to this, a lot of particular cultural rituals that they follow and integrate in their daily lives, such as stories, supernatural characters and phenomena associated with the concept of immortality of the soul, dates back to pre-Colombian religions, superstitions and traditions [16].

Katja Beesdo and all reviewed in 2010 how the genetic, temperamental feature, environmental factors and comorbidity can influence the development of an anxiety disorder. Out of a number of 1189 interviewed parents of children with anxiety disorder with the use of Composite International Diagnostic Interview - the German Version - there has been significant data that highlighted that they also manifest generalized anxiety disorders (9.7%), anxiety disorders (21.5% - agoraphobia, specific phobia, social phobia, panic disorder), depressive disorders (27.7% - dysthymia and major depression) and substance-use disorders (12.6% - alcohol abuse or dependence, illicit drug abuse or addiction). Scales to evaluate the temperament and the personality (especially novelty seeking, reward dependence and harm avoidance) of the parents were used, as well as the Resilience Scale to see the adaption to acute stressors, recovery from trauma and adaption to high-risk environment [19]. Novelty seeking is reflected in the need of the individuals to pursue thrilling and non-mundane experiences, avoiding anything that might lead to monotony, whereas reward dependence is shaped by a constant need to receive attention or material rewards and avoid punishment by displaying a behaviour that the individual considers appropriate. Harm avoidance is the inclination toward a certain level of reticence with the purpose of avoiding reprimands, not seeking or feeling comfortable with new stimuli, and the fear of not being given any type of incentive. Environmental factors included early separation events (15.8%), the death of a parent (2%) and divorce (13.8%) taking place before the child reaches the age of 10, but also the absence of emotional warmth, parental rejection and a display of parental overprotection [20]. Family functioning was evaluated in order to see how the climate of the family was and how they can co-exist together.

The study shows that a strong reaction to novelty (high behavioural inhibition), parental overprotection, exposure to childhood separation events and parental generalized anxiety disorder are most related to anxiety disorders [18]. Parental generalized anxiety disorder is frequently associated with dysfunctional family patterns and the tendency to react to signs of appreciation and social approval, behaviours also frequently asso-

ciated with addictive disorders (reward dependence). Harm avoidance was proved to be a major risk associated with depression and anxiety, which also highlights family dysfunctional patterns [11].

Behavioural inhibition is a temperament treat that affects a person's capacity of response to unfamiliar situations and determine social withdrawal, negative sensations and restraint. Even if avoidance seems an action that decreases the fear response, in long term it activates more physiological responses and perpetuates social guardedness. Children with inhibited behaviour exhibited higher autonomic response in fearful situations compared to uninhibited children [28].

There are three categories of parental attachment style: secure, anxious/resistant and anxious/avoidant. The latter two are considered to be part of insecure attachment which has a huge influence on the development of a child. This children have difficulties in initiating friendships and resolving social problems, are perceived shy or aggressive, and are more likely to be victims of bullying – especially girls. Also, they have a low self-confidence and have difficulties in their intimate life [29].

There is a bidirectional relationship between anxiety disorders and depression disorder; depressive persons frequently develop panic disorder or agoraphobia, but the most frequent association described in literature is second depression when an anxiety disorder is present [17].

In Romania, there are no evidence-based epidemiology studies to evaluate anxiety disorders. There is some data from Child and Adolescent Mental Health Policies and Plans 2005 made by the World Health Organization, updated in 2007, which states that almost 13% of children are affected by one form of anxiety (generalized anxiety, social anxiety, phobias, separation anxiety, panic attacks).

In this context, it is important to know how to evaluate this pathology, how to overcome misdiagnosis and how to help these children improve their functionality, and be able to accomplish their dreams [13]. It's curious how little is known about this serious pathology within the general population. A lot of individuals who suffer from it can live with these intense emotions for a very long time, until they become chronic and some events may block their ability to handle the symptoms and seek medical care [15].

CLINICAL FUTURES

The most used and valid scale to screen the intensity of anxiety, as well as what type it is, is The Screen for Child Anxiety Related Emotional Disorders (SCARED); it has strong psychometric properties and represent an effective way to assess anxiety disorders in children aged between 8 an 18 years according to the criteria of DSM-5 [3]. Developed by Boris Birmaher M.D. and his collaborators, SCARED Scale has two versions; one for children, who are asked about their own feelings under the supervision of a professional who adapts the scales to fit their understanding [4], and one for parents who evaluate their child's anxiety [5].

Anxiety is a complex condition and it depends on a diversity of internal and external factors. Like in many others psychiatric diseases, the biopsychosocial model has an enormous impact on this pathology. Internal factors can be represented by genetics and temperament, while external factors are issues such as education, avoidant behaviour, attachment style and culture [7].

A lot of somatic signs and symptoms represent manifestations of anxiety, non-specific and with a varied period of manifestation. These can be gastrointestinal problems, trembling, sweating, hyperventilation, increased heart rate, feeling weak or tired, insomnia [6]. Psychologically, the person is feeling nervous, restless or tense, has trouble

concentrating and difficulty controlling their worries, manifesting the urge to avoid things that trigger anxiety and, most of all, having a sense of impending danger [10].

CONCLUSIONS

The clinicians must evaluate the symptomatology and decide which clinical approach is to be applied in each case [12]. Even if the severity of the case dictates they must be given medication for a short period of time (especially SSRIs), it has to be associated with psychotherapy in order to evaluate the past of the patient, and the way in which the child has integrated certain facts in their mind [11]. After that, in order to help them, we have to give the child some easy to understand tools which can then be applied to improve their quality of life.

We have to take in consideration the importance of this pathology – when it's disabling, not when it represents a normal biological response to stress - and be aware of the huge impact that it can have on a good functionality. Early intervention and diagnose are essential for a better outcome and a reduced chronicity [14].

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