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Anxiety Disorder Treatment Results after Stationary Care in Bach Mai Hospital, Vietnam

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ABSTRACT

Background: Anxiety disorders form the most common group of mental disorders and generally start before or in early adulthood. Approximately 1 in 4 persons is tended to undergo an anxiety disorder. Main risk factors for anxiety disorders development are stress, genetic factors, environmental factors, and their epigenetic relations. Depression is one of the most complications of anxiety.

The main aim of our study was to monitor the effect of 20 sessions of psychotherapy on the reduction of anxiety and the complete disappearance of the progression of anxiety without taking any medication.

Materials and Methods: The study was conducted on male and female patients diagnosed with anxiety disorder and got stationary therapy at the Institute of Mental Health, Bach Mai Hospital.

Results and Conclusions: The most common and frequent onset symptoms were rapid heartbeat or heart pounding (40%), anxiety (35.3%), mental stress (11.8%) and poor sleep quality (16.2%). Overall improving of patients' condition was certified according to CGI where severity of anxiety lowers from 52.5% to 9.1% after treatment. Our study showed a significant decreasing in anxiety symptoms after treatment.

Keywords: mental health, anxiety, depression, predictors, psychotherapy, treatment results.

1. INTRODUCTION

Anxiety disorders are the most prevalent group of psychiatric disorders with close to 7.5% average prevalence [1-2]. Approximately 1 in 4 persons has tended to undergo an anxiety disorder [3]. Anxiety disorders, including separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder, panic disorder, agoraphobia and generalized anxiety disorder, organize vast group of mental impairments. Basic features of anxiety disorders are excessive and extended fear, anxiety and/or the avoidance of perceived threats in the environment. Panic attacks are also a resistant attribute of such disorders [4-5].

The beginning of majority of disorders starts during childhood, adolescence or early adulthood. Mostly anxiety disorders start between the ages of 4 and 18 while panic disorder and agoraphobia usually begins from the age 18 and older [6-7]. Symptoms are diverse and generally not pathognomonic for anxiety disorders. Comorbidity of anxiety disorder is substantial: more than 50% of those who have one of anxiety disorder meets the criteria for another anxiety disorder [8]. Generalized anxiety disorder is characterized by unrealistic, constant and redundant disturbance about everyday things, such as family, health, future life, finances, etc. It is difficult to control, and is often accompanied by many nonspecific psychological and physical symptoms [9]. Also anxieties disorders are often become precursors for such disorder as a depression, so they can be taken in consideration as depression risk factors [10].

The etiology of anxiety disorders is not clear but there are plenty of factors causing such disorders: stress, diabetes or other comorbidities such as depression, genetic factors, environmental factors, such as child abuse, substance abuse and other [11]. Patients with diverse somatic illnesses, including cardiovascular, respiratory, or musculoskeletal disease, have an increased risk of comorbid anxiety. There is growing evidence about connection between somatic illness and anxiety [12]. Anxiety disorders can lead to unstable relationships, continuous procrastination, and higher work absence. Such problems in their turn can lead to economic costs and have negative effects on somatic health. Risk of death in people with anxiety is increased by 1·4 times [13].

Anxiety disorders are underdiagnosed and undertreated. Medication and psychotherapy produce benefits with similar effect sizes when given as a first-line treatment, such as in primary care. Psychoeducation needs to be included as soon as a diagnosis has been made [14]. Evidence-based psychotherapies are considered first-line treatments for anxiety disorders. Cognitive-behavioral therapy (CBT) is a treatment of choice for anxiety disorders. CBT is a short-term therapy (it taken from 8 to 20 sessions) derived from principles of behavioral and cognitive psychology. Basic components for treat most forms of anxiety disorder involves exposure to the feared stimuli, either in vivo or imaginal. Exposure is used to break a vicious circle of avoidance behavior and enable new, so-called safety learning so that the expected aversive outcome does not occur or is manageable [15-16].

The main task of our study was to monitor the effect of 20 sessions of psychotherapy on the reduction of anxiety and the complete disappearance of the progression of anxiety without taking any medication.

2. SUBJECTS AND METHODS:

The study was conducted from October 2014 to October 2018 at the Department of Psychiatry, Hanoi Medical University. Male and female patients diagnosed with anxiety disorder and got stationary therapy

at the Institute of Mental Health, Bach Mai Hospital were included in the observation of therapy results. Total were included 170 patients in the research study: 65 males and 105 females.

2.1. Inclusion criteria:

- The patients who were diagnosed with anxiety disorder (F41.1) according to ICD 10.
- Have sufficient information (administration history, medical history, clinical examination, subclinical parameters) until the end of the study.
- Attend 20 sessions in 4 weeks.
- Accept not to use drugs to treat anxiety disorder.

2.2. Exclusion criteria:

- The patients with brain functions impairment or brain disorder.
- Patients with substance abuse disorder.
- Patients who did not practice relaxation therapy or did not participate in 20 medical sessions in 4 weeks.
- Used drugs to treat anxiety disorder during the study.

The diagnostic criteria for anxiety disorders are similar across the two most common classification systems: The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) and the International Classification of Diseases, Tenth Edition (ICD-10) [17- 18].

2.3. Research design

The research used a cross-sectional study design. During the research we used clinical intervention methods, monitoring the treatments of patients for a month and compare results before and after treatment.

In order to describe the clinical characteristics of anxiety disorder, we took a random sample according to the following formula (1):

$$n = Z^{2}_{1-\alpha/2}\frac{p(1-p)}{\Delta^{2}}, \quad (1)$$

Where n - sample size p - the symptom which have the lowest rate in the symptoms of anxiety disorder (needle sensation is 22.2% in the Naomi Breslau study).

Δ - the desired precision (= 6.5).

α - statistical significance level, choose α = 0.05, corresponding to the 95% confidence level.

Z - the value obtained from table Z corresponds to the value (α = 0.05). $Z^{2}_{(1-\alpha/2)} = 1{,}96^{2}$

Substitute into the formula, the minimum sample size was selected to be 158 patients. Calculating the rate of dropout is 10%, the sample size for the study was about 173 patients. In this study, 170 patients

met the selection and exclusion criteria. In order to evaluate the efficiency of treatment with relaxation therapy in patients with anxiety disorder, we selected a convenient sample. Out of 170 patients, only 99 patients participated in 20 sessions of relaxation therapy and did not use drugs for anxiety disorder treatment.

All the procedures used in the work were following the ethical standards of the responsible committee on human experiments (institutional) and the 1975 Helsinki Declaration, revised in 2000.All patients agreed to participate in the experiment and did not deny the results of the experiment, which will be presented in the given research paper.

RESULTS AND DISCUSSION

Table 1 demonstrates the largest part of patients was from 26 to 45 years (49.4%). By educational qualification 47 patients (27.7%) completed junior high school, 23.5% completed high school and 24.7% of patients ended college. Only 3 patients (1.8%) have postgraduate education. Sex differences are relatively small during childhood but has been raised throughout adolescence. Women are more prone to develop emotional disorders; they are 1.5 to 2 times more likely than men to have an anxiety disorder.

Table 1. Distribution of patients' age

Age	Male, n=65		Female, n=105		Total, n=170	
	amount	%	amount	%	amount	%
18-25	7	10.8	7	6.7	14	8.2
26-35	22	**33.8**	20	19.0	42	**24.7**
36-45 16 24.6 26 24.8 42 **24.7** 46-55 7 10.8 30 **28.5** 37 21.8						
56-65	11	16.9	17	16.2	28	16.5
>65	2	3.1	5	4.8	7	4.1
$\overline{X}$	40.4±14.3		44.8±12.8		43.2±13.6	

±SD

By marital status total majority of patients are married - 85.2% - and 11.8% are single (never been married), other participants were divorced or widowed. By jobs distribution, the majority of males are freelancers (40%) and intellectual employees (26.2%); female's jobs have been distributed equally by farmer workers – 24.8%, housewives – 28.5%, intellectual employees – 22.8%. Among all patients, 56.5% of participants were the city citizens, 38.2% were the countrysiders, and 5.3% have live in mountainous region. Most of patients (168 of 170) have Kinh ethnicity.

Must be said, treatment using for anxiety disorders is still low, and this is most problematic in low-income countries but the high-income countries are also in issue [20-21]. The most common and frequent onset symptoms were rapid heartbeat or heart pounding (40%), anxiety (35.3%), mental stress (11.8%), and poor sleep quality (16.2%). The patients majority (62.9%) ask for help worrying about symptoms in first 12 months from symptoms beginning observing, 17% - ask for help only after two years of disorder's

start. In our research in 93 cases psychological trauma took place. Among them, 55 patients evidence chronic form of psychological trauma. Other causes of anxiety disorder were:

- family troubles;
- society pressure; • work / study overloading;
- economy problems.

About of 40% all patients had alcohol or smoking problems. 21 patients had concomitant disease – depression. The most frequent time of symptoms occurrence is night (68.2%). Most frequent physical symptoms of anxiety disorder were: nervousness; rapid heartbeat and heart pounding; excessive perspiration; and shortness of breath.

Less frequent symptoms were: trembling; xerostomia; choking sensations; chain pain or discomfort; nausea or abdominal discomfort; and needle sensations.

Most frequent mental symptoms were: anxiety, stress, sleeping difficulties (Table 2). And the most frequent combinations of symptoms were nervousness and perspiration as well as nervousness, perspiration and xerostomia.

Table 2. Characteristic of patients' mental symptoms.

Other symptoms		Male, n=65		Female, n=105		Total, n=170	
		Amount	%	Amount	%	Amount	%
Symptoms related to mental status	dizziness / unsteadiness/ fainting	36	55.3	75	71.4	111	65.2
	Misperception of reality	2	3.1	2	1.9	4	2.3
	Fear of losing control	17	26.1	26	24.7	43	25.2
	Fear of death	25	38.4		20 45		19.1 26.4
Stress symptoms	Muscle tension/pain	27	41.5		28 55		26.6 32.3
	anxiety	61	93.8	98	93.3	159	**93.5**
	stress	45	69.2	77	73.3	122	**71.7**
	Globus sensation	4	6.1	14 18	13.3		10.5
Other nonspecific symptoms	Startle easily	34	52.3	53 87	50.4		51.1
	Difficulty concentrating	40	61.5	59	56.1	99	58.2
	Persistent irritability	29	44.6	38	36.1	67	39.4
	Sleeping difficulty due to anxiety	64	98.4	101	96.1	165	**97.0**

Anxiety disorders can also be conceptualized as dimensional ranging from mild to severe [22]. The most common psychiatric comorbidity is major depressive disorder: half to two-thirds of adults with anxiety disorders also suffer from this diagnosis [23]. According to CGI (Clinical global impression) scale in 93 patients disorder was estimated as very severe (54.7%). Efficiency of treating anxiety symptoms according to HAM-A (Hamilton Anxiety Rating Scale) among 99 patients which participated in all 20 sessions of relaxation therapy showed significant lowering of severe anxiety: from 45% at the beginning of the treatment to 11% in the end of therapy (Table 3). If untreated, anxiety disorders tend to be chronic with waxing and waning symptoms. But there are data, symptom reduction might occur for close to 40% of patients [24-25].

Table 3. Efficiency of treating anxiety symptoms according to HAM-A (n=99)

severity of anxiety	**T0**		**T2**		**T4**		**p (T0-T2)**	**p (T0-T4)**
	amount	**%**	**amount**	**%**	**amount**	**%**		
Mild	34	34.3	53	53.6	52	52.5	**< 0.0001**	**0.0001**
Moderate	20	20.2	24	24.2	36	36.4	0.1582	**< 0.0001**
Severe	45	45.5	22	22.2	11	11.1	**< 0.0001**	**< 0.0001**

There is a significant reduction in the main symptoms of the autonomic nervous system: rapid heartbeat or heart pounding from 89% to 43%, perspiration and tremor from 59% to 16%, and xerostomia (38-16%). Also, there were more than twofold reductions after treatment in such physical symptoms: shortness of breath, choking feeling, chest, and abdominal discomfort. Twofold decreasing (66%-32%) of such mental symptoms as dizziness, unsteadiness, fainting, misperception of reality, fear of losing control (as well as fear of death) was also a result of relaxation treatment.

Sleeping difficulties lowering was also observed from 96% at the therapy beginning to 76 at the end of treatment. Overall improving of patients' condition was certified according to CGI where severity of anxiety lowers from 52.5% to 9.1% after treatment (Table 4).

Table 4. Efficiency of disease severity improvement at different time according to CGI

Severity of disease according to CGI scale	**T0**		**T2**		**T4**		**p (T0-T2)**	**p (T0-T4)**
	amount	**%**	**amount**	**%**	**amount**	**%**		
Unable to evaluate	-	-	-	-	-	-	-	-
Normal	-	-	-	-	-	-	-	-
Boundary state	-	-	-	-	-	-	-	-
Mild	0	0.00	17	17.1	59	59.6	**<0.0001**	**<0.0001**
Moderate, clear, severe	47	47.4	69	69.7	31	31.3	**<0.0001**	**0.0006**
Severe, very severe	52	52.5	13	13.1	9	9.1	**<0.0001**	**<0.0001**

One patient disease got worst after treatment. For any patient presenting with increased pathological anxiety. a thorough psychiatric and somatic evaluation should consider whether symptoms reflect other health conditions or effects of substance or medication use [26].

Females show better response to treatment comparing with males: 5.5±5.1 vs 4.4±4.6 ($p<0.0001$). By comparing age groups best therapeutic effects show patients with age from 36 to 55 years (5.5±5.5 $p<0.0001$); worst – patients over 65 years (3.75±2.7 $p<0.0001$). Patients without psychological trauma show better response to treatment comparing those who had previous trauma:
5.67±5.1 vs 4.60±4.8 - $p<0.0001$ (Table 5).

Table 5. Comparison of therapeutic effects between patients: psychological trauma present as a difference point

Group of patients	T0 $\overline{X}_{\pm SD}$	T2 $\overline{X}_{\pm SD}$	T4 $\overline{X}_{\pm SD}$	p (T0-T2)	p (T0-T4)
Patients with psychological trauma	11.9±3.5	9.6±3.5	4.60±4.8	**0.001**	**<0.0001**
Patients without psychological trauma	11.78±3.6	9.45±4.1	5.67±5.1	**<0.0001**	**<0.0001**

CONCLUSION

Anxiety remains a relevant problem of today's life. Our study has shown there are the relationship between the severity of anxiety disorders and the impact of psychotherapy sessions on them. As a result, almost half of the people stopped meeting the criteria of our study, but a clear link between the duration of psychotherapy and the reduction of anxiety disorders had been traced. We have proven psychotherapy, calmness, and the absence of trigger factors are good ways to treat anxiety disorders.

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