

THE INFLUENCE OF PSYCHIC FACTORS ON COLLAGEN ILLNESSES RELATED WITH CARDIOVASCULAR ILLNESSES

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ABSTRACT. The **hypothesis** of this study consists in demonstrating based on statistic data, if the patients' anxiety and the frequency of dysfunctional thoughts can be decreased with psychotherapeutic interventions and the observation of influences on arterial tension values as well as the influence on the C-reactive protein. **Methods:** The test specimen includes 89 patients with collagen illnesses associated with specific cardiovascular illnesses. The patients were recruited from the Internal Medicine department of the Emergency County Hospital Reșița, diagnosed with collagenosis (PR, SA, LED, DM, Sdr. Sjogren) associated with specific cardiovascular illnesses (HTA, FA, BRD, BRS, Angina pectorala, IM). Our test specimen included 33 patients with collagen illnesses and related cardiovascular illnesses that are exposed to psychological questionnaires (ATQ and HARS), coming from urban and also rural areas, with ages from 24 to 70, among which 15 are males and 18 are females (fig. 1b). All the patients agreed to participate in this study and all of them gave their approval. The study and the application of evidence had in its vision obedience of the ethical norms and professional ontology. **Results:** the influence of psychic factors on collagen illnesses associated with cardiovascular illnesses. **Conclusions:** On the studied group it was observed that most of the people with collagen illnesses are also affected by cardiovascular diseases that, as a result from clinical and paraclinical tests, are estimated to be a risk factor for the studied patients and also through psychological interventions we can identify the neurotic patients' psychological pattern.

Keywords: psychic factors, cardiovascular illnesses, collagen illnesses, psychological questionnaires.

INTRODUCTION

Collagen diseases have in our days an important role in the ground of immunological diseases because of the complex problems that they raise about their clinical- biological individuality. The symptomatic polymorphism of this illnesses, the inexistence of a pathognomonic sign, the diversity of clinical forms, the unknown etiology of the various pathological problems that are imposing, are making this diseases to be continuously studied by many authors. Also, the role of this paper is to bring as many as possible informations about this illnesses as well as their role in the influence of some of the human body systems and devices. The importance and the signification of collagen diseases involve multiple concerns for many researchers from various medical specialties. The individuality of the collagenosis group has stimulated interest about the chemical composition of the collagen tissue and the funamental substance and also the role of collagen in some of the organs and systems of the human body.

Hypotheses:

The **hypothesis** of this study consists in demonstrating based on statistic data, if the patients' anxiety and the frequency of dysfunctional thoughts can be decreased with psychotherapeutic interventions and the observation of influences on arterial tension values as well as the influence on the C-reactive protein.

The given study can have as base more profound pshychological tests regarding the difunctional relationship with the mother from childhood which influences the trigger factor in appearance of collagen diseases, as well as the appearance of problems in the social medium that can be considered as a trigger factor in the appearance of cardiovascular illnesses.

The obtained data from the selective method allow the analysis of:

- the existence of a connection between anxiety and the patients' beliefs and thoughts;
- the existence of a correlation between age and the debut of collagen diseases;
- the laboratory analysis (VSH, PCR, FR, lipids and glucids samples) are considered trigger factors in HTA and collagen illnesses;
- the consideration of PCR as a risk factor in the appearance of the collagen diseases.

Description of the test specimen:

The test specimen includes 89 patients with collagen illnesses associated with specific cardiovascular illnesses. The patients were recruited from the Internal Medicine department of the Emergency County Hospital Reșița, aged between 19 and 70, of which 30 are males and 5

The surroundings of the patients are urban as well as rural. They were diagnosed with collagenosis (PR, SA, LED, DM, Sdr. Sjogren) associated with specific

cardiovascular illnesses (HTA, FA, BRD, BRS, Angina pectorala, IM).

Our test specimen included 33 patients with collagen illnesses and related cardiovascular illnesses that are exposed to psychological questionnaires (ATQ and HARS), coming from urban and also rural areas, with ages from 24 to 70, among which 15 are males and 18 are females. All the patients agreed to participate in this study and all of them gave their approval. The study and the application of evidence had in its vision obedience of the ethical norms and professional ontology.

Description of evidences:

From the 89 patients the following criteria were estimated for inclusion: the C-reactive protein, the rheumatoid factor, the fibrinogen, the arterial hypertension, the atrial fibrillation, left bundle branch block, right bundle branch block, the angina pectoris from effort, the inferior myocardial heart attack, and for those exposed to the pshychological test we add the results of the two psychologicl questionnaires (ATQ and HARS).

On all this patients we starten an investigation, following their lifestyle that most of the time is precarious from the socio-economical and professional point of view, the hereditary antecedents that mos of the time is passed on the third generation and the risk factors that are presented in chart 1.

There were qualitative and quantity methods applied for the harvesting of samples:

- laboratory data (VSH, the rheumatoid factor, the C-reactive protein, the fibrinogen, lipids and fat samples), the arterial tension values(TS, TD), on all the patients included in the study.

The laboratory determinations were in the Biochemistry laboratory from the Emergency County Hospital Reșița, after the next model:

- the determination of clues in the lipids spectrum: it was made through a blood sample that is harvested after an alimentary restraint of 10 hours. The total cholesterol with the HDLc and the triglyceride are determined through the photometric enzymatic method. The Fiederwald formula is a calculation method highlighted this way: $LDLc = \frac{C_{total} - HDLc - TG}{2.2}$. The modifications that come into prominence in the lipidic metabolism are appreciated in conformity to The National American Program for Dyslipidemia. This way dyslipidemia is considered on the values of the total cholesterol: > 200 mg/dl, $LDLc > 170$ mg/dl, $TG > 150$ mg/dl, $HDLc < 50$ mg %, for females, and for males < 40 mg %.

- the determinations of clues in the glucidic spectrum:
 - the anamnesis for the patients from the study which involves
 - the causes of hospitalisation where 90% from the interviewed patients are specific to the

studied collagen illnesses as well as for associated cardiovascular diseases, studied in the former chapter as well as the cardiovascular risk factors present in the chart and the precarious social conditions such as the habitat, the socio-economic conditions, the precarious education, the interrelation proportion with the family and the persons around.

- TA determination: is made with the manual tensiometer twice per day at an interval of 10 hours (8:00-18:00), considering the normal tension within the TAs ≥ 140 mmHg și TAD ≥ 90 mmHg, without hypotensive medicamentation.
- The psychological test: Hamilton Anxiety Rating Scale (HARS), the Automatic Thoughts Questionnaire – ATQ from the Clinical Evaluation Scales, adapted for the population from Romania. The tests were applied in multidisciplinary team and interpreted by the clinical psychologist from the hospital. The tests are with utilization licence and the Declaration of Helsinki was respected.

Hamilton Anxiety Rating Scale

Anxiety contains 4 levels that signify specific modifications. So, the subjective level contains fear, horror, inability, imminent catastrophe; the cognitive level includes thoughts of having a heart attack, the thought of dying, humiliation, the fear of beeing in an emberassing situation or something horrible happening, the physiological level includes shivering, palpitations, sweating, vertigo, muscular tension, breathing difficulties and of the behavioral level; the resitance of some rituals, the avoidance of certain specific situations to handle this bewilderment.

HARS is used to evaluate the symptoms of anxiety severity, in the evaluation of the clinical impact in psychotherapeutic or medicamentational interventions for the anxious patient and for the effects of the psychopathic medicamentation it represents the „standard” approach of evaluating anxiety.

The HARS scores can be useful for the modification of medicamentation doses for the patients with anxiety.

HARS was made in 1959 by Max Hamilton and is one of the first instruments that can determine the severity of the anxiety syndrom. The Scale allows the evaluation of all psychical and somatic symptoms of anxiety. The factor analysis determines the items associated with psychic anxiety and the onest has determine the somatic aspects of anxiety. The studies show that the patients that have gathered anxiety with panic attacks have higher scores and those without a clinical diagnosis have much more lower scores.

Scale characteristics:

HARS contains 14 items that are responsible for the measurement of the intensity of the anxiety symptoms, that are very sensible to anxiety therapy.

The scale includes evaluation items of somatic, emotional and cognitive behaviours, evaluation based on certain observations of the patients' current state, obtained after an anamnesis that includes questions strictly about the anxiety disorders. The base of this scale are cognitive determinations, the anxious disposition, the depressive disposition, the vegetative and somatic symptoms from anxiety and also the behaviour during the interview.

This scale helps us calculate the global score of anxiety but also the psychic anxiety and somatic anxiety, separated, and it can be applied for both children and adults.

The rating and the administration

The scale can be administrated without time limit and the patients' evaluation starts immediately after the conditions and the necessary materials are assured.

The administration of the scale is made by persons trained in this domain for a better interview deployment. This way the evaluator questions the subject with each of the questions from the scale and according to their answer and the results present on the scale, the evaluator writes a number on the answer paper, after which every item is marked with values between 0 and 4. So 0 = no anxiety, 1 = easy anxiety, 2 = moderate anxiety, 3 = severe anxiety, 4 = extremely severe and undoubtable anxiety.

The marking is specific for each item and by adding the scores of the 14 items the total score of anxiety, from 0 to 56, is obtained. By adding the 7 psychic anxiety items of the scale a score from 0 to 28 is obtained and by adding the other 7 items, the ones for somatic anxiety, another score from 0 to 28 is obtained.

Fidelity and validity

The fidelity of a psychic test is referred to the accord or stability of the analogic measurements. If an instrument is truthful then, results with a certain time stability are obtained.

Validity: the measurement in which the interference that we make starting from the test result are correct.

The etalonation of the general scores higher than 20 appear for persons with anxiety disorders of clinical intensity.

Automatic Thoughts Questionnaire (ATQ)

The way we interpret the events surrounding us are determined by our emotions and behaviours regarding the cognitive approach of depression. This interpretation is based on the circumstances of the event, on our disposition or other events that are added to our professional experience.

Beck is supporting the theory of automatic negative cognites that highlight the importance of some long term amnesic structures (passed experiences that

influence the organisation and the process of current informations).

This automatic negative cognites, are actually some schedules and they are cognitive products as a prediction and a judgemental form made by the individual for himself, the world and the future. The automatic negative cognites are „repetitive, persistent and they immediately lose control” and they take to the scanning, stocking, organisation and reactualisation of information. There are two kinds of stimuli, one inconsistent one considered as representing irrelevant information that re forgotten or ignored and the consistent ones that already have existent and elaborated schedules.

Beck affirms that each psychological disorder has a cognitive profile, specific for all the levels of cognitive functionality, also he highlights the fact that the individuals present disfunctional schedules and higher vulnerability to develop certain disorders. This vulnerability is in a tight relationship with the stress factors from life.

Because the fact that the cognitive schedules are automatic they allow the subject to save resources and they activate quick, they determine a quicker categorisation of environmental stimuli, they allow the reactualisation of complex scenarios only by simple detonators, they support an efficient encodation, etc. The cognitive schedules may also represent the source of some cognitive distorsions, they can produce an erronated or preferencial encodation of some stimuli, errors, neglects, or inappropriate behaviour. Most of the schedules that are the base of these distorsions are disfunctional and representative of a frequently quoted category in the explication of perception, decision, memory, etc.

When activating the automatic thoughts, they modulate the emotional response and the behaviour towards a certain situation or event, ignoring or avoiding all the other informations that are not related with them, and the onest hat are related are processed and stocked appropriately. Once they are activated the disfunctional schedules produce a series of biases in processing the informations, distorsions that act in a reciprocal manner appear, in this way the disfunctional shedules are intensified and the adaptive ones are suppressed.

With the help of psychotherapeutic interventions we observe modifications of the automatic thoughts with direct effect on the clinical board.

Characteristics of the scale:

Beck has made the following classification of the cognites:

- automatic thoughts: recognised as beeing the main target for cognitive behaviour psychoterapy, that are easier to modify in the beggining. Automatic thoughts from depression target helplessness, failure, loss, rejection, incompetency (for example:

- catastrophes, emotional reasoning, personalization, global labelling, excessive generalisation, reading the others' mind, using terms such as „must” , maximisation of the negative aspects and minimalisation of the positive ones, divided thinking
- intermediary cognites
 - central cognites

The last two categories are easier to identify and more accessible.

The Automatic Thoughts Questionnaire measures the frequency of automatic negative thoughts. The subjects mark on a Likert scale of 5 frequency points with which they experienced certain thoughts in an amount of time. The score obtained at ATQ presents us the frequency of negative thoughts that refers to our own person in the amount of time given, thoughts that are theoretically associated with depression.

RESULTS

For the subjects included in the test specimen the following static indicators were registered at start at the Hamilton Anxiety Rating Scale and the Automatic Thoughts Questionnaire. The quantification of the influences of all the factorial parameters of the variations on the aberrance from the central factor (media) is realised with the help of the variation analysis or ANOVA (analyzsis of variance). From the firsts chart analysis it results that on the ATQ a big standard aberrance exists, bigger than the anxiety values (psychic and somatic). The most homogeneous data in conformity with the homogeneity grade are those that represent the Somatic Anxiety (ANXSOM) (19,64%), ATQ(26,46%), Age (27,72%) (chart.1).

Chart 1. Statistic Description

	ANXPSIH	ANXSOM	ATQ	VARSTA	CARDIO	COLAGEN	PCR	HTA
Mean	11.1515	13.2121	34.9697	48.30303	4.1212	1.39394	2.727	1.879
Median	11	12	34	53	4	1	2	2
Maximum	17	20	58	70	6	2	4	3
Minimum	7	11	21	24	2	1	1	1
Std. Dev.	3.509997	2.59516	10.30317	13.3872	1.727671	0.4962	1.2317	0.7398
Skewness	0.26836	1.005052	0.763084	-0.39875	-0.115641	0.43412	-0.0783	0.1903
Kurtosis	1.85971	3.42817	3.001217	2.091077	1.391468	1.18846	1.3460	1.8960
Jarque-Bera	2.18396	5.807795	3.202634	2.010439	3.631189	5.548837	3.7954	1.8750
Grad de omogenitate	31.48%	19.64%	26.46%	27.72%	41.92%	35.60%	45.16%	39.38%
Probability	0.33555	0.05481	0.201631	0.36596	0.16274	0.0624	0.1499	0.3916
Sum Sq. Dev.	394.2424	215.5151	3396.970	5734.9697	95.5151515	7.878788	48.545	17.515

The dispersal of the values can also be concluded in the Skewness asymmetric coefficient (equal with 0 in the case of simetric series). In the base rom the Chart 1. we can conclude that the data included in the study have a sensible grade of eterogenity. The restriction of normality is verified by observing the distribution of the values of each variable if ti present or not an accentuated grade of asymmetry. In this case the box plot diagram is used, that shows the existence of aberrances or other anomalie son the normal distribution.

In Fig. 1. these aberrances can be observed really clear, the point representing the medium value of the included in the study indicators and the red line, the median value.

If we consider that the HTA factor, a dependent factor, as we can very well observe from the correlogram from above (Fig. 2.) is influenced quite strongly by the independent PCR and Collagen factors, the dependance can be considered direct, the linear type.

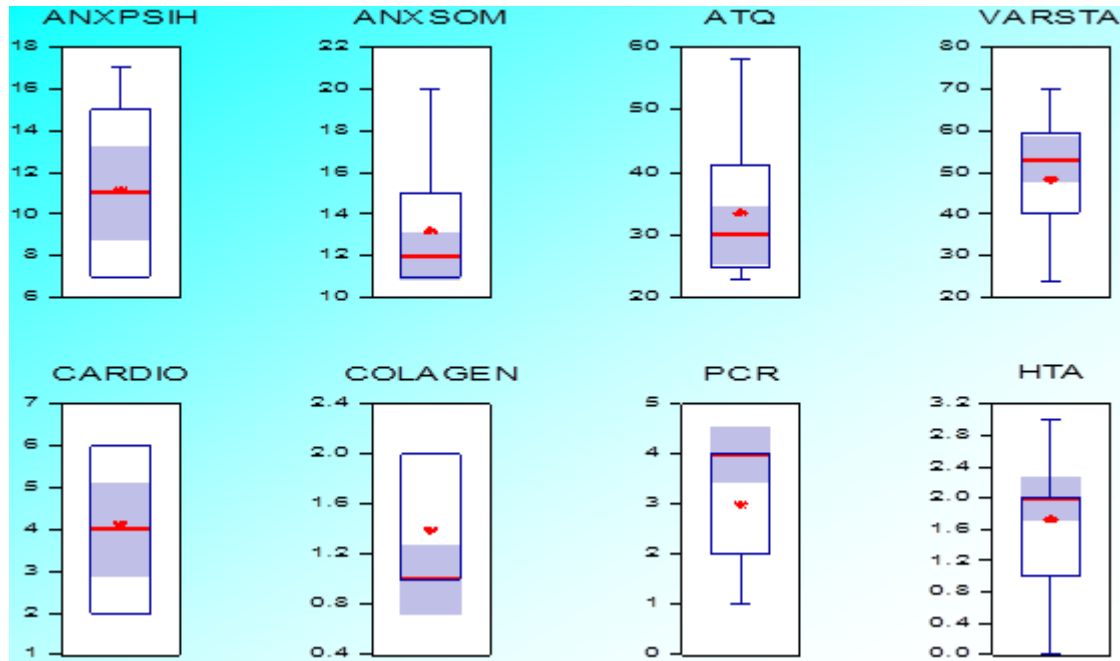


Figure 1. The box plot diagrams

As well we can observe in the case of the independent ATQ and Cardio factors, that the dependence is the linear type, also with a quite strong dependence. (Fig. 2.)

For the measurement of the dependence between the factors included in the study, after many attempts to

find the bounding equations the result consisted in many valid regression equations (Chart 3.)

For the models elaboration the factor exclusion method was used.

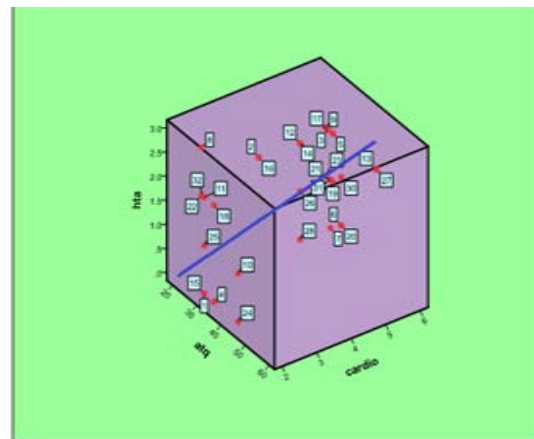
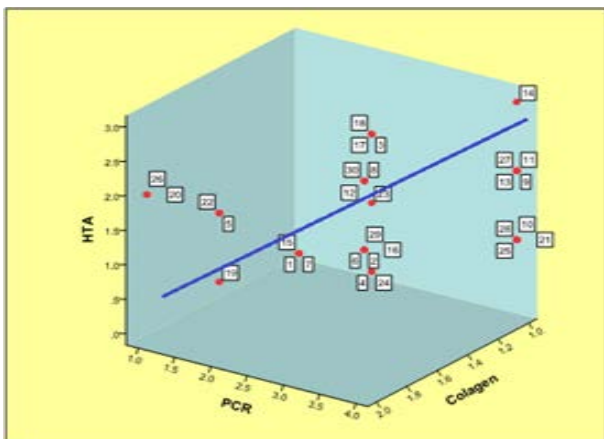
The econometric models resulted from the data processing are the following:

$$HTA = C(1) + C(2) * VARSTA + C(3) * ANXPSIH + C(4) * ANXSOM + C(5) * ATQ + C(6) * COLAGEN + C(7) * PCR \quad (1)$$

$$HTA = C(1) + C(2) * PCR + C(3) * ANXPSIH + C(4) * ANXSOM + C(5) * ATQ + C(6) * COLAGEN \quad (2)$$

$$HTA = C(1) + C(2) * PCR + C(3) * ANXPSIH + C(4) * ANXSOM + C(5) * COLAGEN \quad (3)$$

$$HTA = C(1) + C(2) * PCR + C(3) * ANXPSIH + C(4) * COLAGEN \quad (4)$$



The data regarding the correlation coefficients (Pearson Correlation) and the respective possibilities of calculation ($p = \text{Sig. (1-tailed)}$) are presented in Chart 2. As you can see between Anxsom and Anxpsih exists quite a strong relation, the partial correlation coefficient is 0,868 (probability $p = 0.000$). A strong relation exists between the Age factor and:

- Collagen illnesses - the partial correlation coefficient is -0,649 ($p = 0.000$);
- Anxsom - the partial correlation coefficient is 0,546 ($p = 0.001$);
- Anxpsih - the partial correlation coefficient is 0,551 ($p = 0.000$).

Chart 2. Correlations

	hta	pcr	colagen	anxsom	anxpsih	atq	varsta
Pearson Correlation	hta	1.000	.482	.499	.077	.128	-.268
	pcr	.482	1.000	.051	.108	.204	.132
	colagen	.499	.051	1.000	-.261	-.448	.194
	anxsom	.077	.108	-.261	1.000	.868	.201
	anxpsih	.128	.204	-.448	.868	1.000	.288
	atq	.212	.064	.194	.201	.288	1.000
	varsta	-.268	.132	-.649	.546	.551	-.117
Sig. (1-tailed)	hta	.	.002	.002	.335	.238	.119
	pcr	.002	.	.388	.275	.128	.361
	colagen	.002	.388	.	.071	.004	.140
	anxsom	.335	.275	.071	.	.000	.131
	anxpsih	.238	.128	.004	.000	.	.052
	atq	.119	.361	.140	.131	.052	.
	varsta	.066	.233	.000	.001	.000	.258

The relation between the factors included in the study is measured with the help of the correlation coefficients (R) (Chart 3.) The models that contain

$$F_{calc} = \frac{r_{xy}^2}{1 - r_{xy}^2} (n - 2) = 6,171 \quad (5)$$

The chart value for a significance of 0,05 (5%) is 2,142. The relation $F_{calc} > F_{tab}$ results, which shows that in this case the nule ^(H0) hypothesis is rejected,

more independent factors demonstrate a stronger bond – of 0,766. The F- (Fisher - Snedecor) test, calculated for model 1 is:

meaning that on HTA the influential factors included in this econometric model have a significant influence.

Chart 3. Model Summary^e

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.766 ^a	.587	.492	.641	.587	6.171	6	26	.000	1.861
2	.764 ^b	.583	.506	.632	-.004	.259	1	26	.615	1.984
3	.759 ^c	.576	.515	.626	-.007	.479	1	27	.495	2.252
4	.735 ^d	.540	.493	.641	-.036	2.365	1	28	.135	2.341

- a. Predictors: (Constant), varsta, atq, pcr, anxsom, colagen, anxpsih
- b. Predictors: (Constant), atq, pcr, anxsom, colagen, anxpsih
- c. Predictors: (Constant), pcr, anxsom, colagen, anxpsih
- d. Predictors: (Constant), pcr, colagen, anxpsih
- e. Dependent Variable: HTA

Chart 4. ANOVA^e for regression

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.203	6	2.534	6.171	.000 ^a
	Residual	10.676	26	.411		
2	Regression	15.097	5	3.019	7.561	.000 ^b
	Residual	10.782	27	.399		
3	Regression	14.905	4	3.726	9.508	.000 ^c
	Residual	10.974	28	.392		
4	Regression	13.978	3	4.659	11.355	.000 ^d
	Residual	11.900	29	.410		

- a. Predictors: (Constant), varsta, atq, pcr, anxsom, colagen, anxpsih
- b. Predictors: (Constant), atq, pcr, anxsom, colagen, anxpsih
- c. Predictors: (Constant), pcr, anxsom, colagen, anxpsih
- d. Predictors: (Constant), pcr, colagen, anxpsih
- e. Dependent Variable: HTA

The F test statistic from Chart 4 presents information on the sum of squared deviations of the dependent variable, due to the redression model and the factor that represents the model error (residue), the freedom grades, the variation estimations due to the two variation sources (residue/ regression) , the rapport between the F test and the Sig. probability values.

Referring to the analysed data we can conclude that the PCR Collagen and Anxpsih variable in the number 4 model, had the most influence on the dependent HTA

factor, its variations can be explained by the variations of the factors enumerated above.

Because in the obtained models there are more independent variables, measured in different units of measurement it is necessary to use standard regression coefficients for the comparison of the resulted data.

The obtained results regarding the standard factors (Beta) are presented in Chart 5. The Beta coefficients refer to how big is the standard aberrance of the dependent variable due to the raise of the standard deviation of the independent variable.

Chart 5. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.739	.961		-.769	.449	-2.715	1.237		
	pcr	.256	.101	.348	2.533	.018	.048	.463	.839	1.192
	colagen	1.246	.376	.688	3.313	.003	.473	2.020	.368	2.716
	anxsom	-.136	.106	-.391	-1.278	.213	-.354	.082	.169	5.904
	anxpsih	.203	.086	.792	2.363	.026	.026	.379	.141	7.083
	atq	-.009	.012	-.106	-.718	.479	-.034	.017	.727	1.375
	varsta	-.007	.014	-.102	-.509	.615	-.035	.021	.392	2.552
2	(Constant)	-.999	.803		-1.244	.224	-2.647	.649		
	pcr	.244	.097	.332	2.518	.018	.045	.443	.885	1.130
	colagen	1.359	.300	.750	4.534	.000	.744	1.974	.564	1.773
	anxsom	-.158	.095	-.455	-1.650	.110	-.353	.038	.203	4.920
	anxpsih	.210	.084	.820	2.516	.018	.039	.382	.145	6.888
	atq	-.008	.012	-.101	-.692	.495	-.034	.017	.731	1.367
3	(Constant)	-1.128	.774		-1.458	.156	-2.713	.457		
	pcr	.252	.095	.343	2.638	.013	.056	.447	.896	1.116
	colagen	1.268	.267	.700	4.755	.000	.722	1.814	.700	1.430
	anxsom	-.141	.091	-.406	-1.538	.135	-.328	.047	.218	4.594
	anxpsih	.185	.075	.724	2.479	.019	.032	.339	.178	5.634
4	(Constant)	-1.770	.667		-2.655	.013	-3.134	-.407		
	pcr	.281	.096	.383	2.935	.006	.085	.477	.933	1.072
	colagen	1.138	.259	.628	4.397	.000	.608	1.667	.778	1.285
	anxpsih	.085	.037	.332	2.278	.030	.009	.161	.748	1.337

a. Dependent Variable: HTA

CONCLUSIONS

According to the study and the obtained data the next conclusions were found:

- the collagen illnesses associated with cardiovascular illnesses are influenced by age, automatic negative thoughts, PCR, somatic anxiety, psychic anxiety. We can say that HTA is determined by the psychic and somatic anxiety with influences on the myocard, also we can mention that the collagen illnesses are in an interrelation with psychic and somatic anxiety.PCR according to the HARS test on the cardiovascular system;
- the speciality literature mentions that between HTA, PCR and collagen diseases exists an interrelation, but according to this study a dependence also exists between automatic negative thoughts and cardiovascular;
- a strong relation exists between age, collagen diseases, psychic and somatic anxiety. The

studies show that a strong bond exists between psychic and somatic anxiety highlighted by the HARS questionnaire.

- the collagen diseases are majorly influenced by the psychic anxiety
- if we have as an independent factor, the automatic negative thoughts (ATQ) and the dependent HTA factor than we can say that as long as the ATQ questionnaire is included in an upper class (3-5) than we have high values of arterial tension (180/100mmHg) and when these classes decrease the values of the arterial tension decrease as well. In the same way we can affirm that the somatic anxiety will negatively influence the values of the arterial tension. We can also affirm that there exists a strong bond between the HTA, the age, the somatic anxiety and the automatic negative thoughts.

PROPOSALS

Due to our conclusions and the realised study the next proposals are obtained:

The cognitive symptoms (concentration problems, concern, concerning problems) and the physical ones (sleep deprivation, fidgeting, muscular tension) are present at patients with generalised anxiety at a high level.

The purpose of the intervention is to decrease the preoccupation for anxiety, to bring it to a more acceptable level and to decrease the level of autonomous activation.

And so, for all of this the therapist will use a serie of interventions, such as the biofeedback, the progressive muscular relaxation, respiratory relaxation as well as interventions for sleep deprivation, anxiety decrease, as well as cognitive interventions for the reduction of concern. The cognitive interventions include the assistance of the patient in differencing the predicative from the nonpredicative, in approaching the patient bound to the concern produced by the nocive effects of concern, assisting the patient when gaining abilities to make the difference between anxiety and real life facts. The therapy for the patient with generalised anxiety involves the treatment of multiple disorders because most of the patients with anxiety have comorbid disorders.

General plan of intervention for generalised anxiety:

- Evaluation:
 - initial clinical evaluation of the anxiety symptoms
 - the application of test and other evaluations
 - taking in consideration the medicamentation treatment
- Familiarization with the intervention
- Relaxing trening
- The evaluation and confrontation of the avoidance. Expositon and other techniques.
- Desensibilization combined (or not) with relaxation
- Monitorization of the concern and the evaluation of the “concerning time”
- Cognitive evaluation of the nature of the concern
- Other techniques to counter attack concern
- Interpersonal intervensions
- Stress reduction and trening for the raising of solving problems abilities
- Finishing the intervention

ANNEXES

Annex 1

The items characteristics:

HARS is composed of 14 items, marked on a scale from 0 to 4, but 7 of this items are specific for psychic anxiety (1,2,3,4,5,6,14) and the other 7 are specific for the somatic anxiety (7,8,9,10,11,12,13).

Item number 1: is represented by anxious disposition, in its evaluation are present cognitive manifestations.

Item number 2: psychic tension: incapacity of relaxation, nervousness, shivering, body tensions, hyperexcitability

Item number 3: covers the patients fear, that may contain photophobia, the fear of strange persons, the fear of beeing alone, the subject feels good avoiding this situations.

Item number 4: sleep deprivation, the patient describes the sleeping periods.

Item number 5: cognitive symptoms such as amnesia, attention and concentration problems appear.

Item number 6: also known as the depressive disposition also includes insomnia, anhedonia, the loss of interest for some of the activities.

Item number 7: refers to the muscular somatic symptoms such as muscular pain and muscular contractions.

Item number 8: somatic sensin symptoms are described such as tinnitus, visual impairment, rashes and tinglings

Item number 9: involves the cardiovascular symptoms: tachycardia, palpitation, lipotimia.

Item number 10: refers to the respiratory symptoms that involve: the sensation of suffocating, wheezing,

Item number 11: contains the gastrointestinal symptoms: diarrhea, constipation, nausea and vomiting.

Item number 12: contains genitourinary symptoms such as: impotence, dysmenorrhea, polyuria, urine during the night, lack of urine.

Item number 13: is adressed to the autonom nervous system: sweating, redness of the face, vertigo

Item number 14: evaluated the patients behaviour during the anamnesia.

Annex 2:

The ATQ items characteristics:

The original version of this scale is made in 1980 by Hollon and Kendall consisting 30 items and measuring the frequency of the automatic negative thoughts in association with depression. At first the study was made on students interviewed in different depressive states regarding their thoughts. Later on the found cognites list was administered to another group of students together with the scale that evaluates depression. The result is a strong association between the automatic negative thoughts and the depressive symptoms. This items were used for other studies too.

The original version indicates very good psychometric properties, with differences between the depressive patients and the other ones.

The shorter version contains 15 items and was realised through the item anlysis, excluding the items considered redunded. The studies showed that this version can be more useful than the original version both of them having the same discriminating value.

In certain studies, through the analysis of the main components the existence of other factors was identified: 2 factors (subscale) - negative expectation and the need of change or 4 factors- negative expectations, low self esteem, the need for change and helplessness. Even so the studies considered the scale as being characterised by a single dimension that is responsible for the variation of the data- negative cognites.

The 15 items are formed from different ruminations that are associated with depression: each item contains a single thought referring to about oneself „I'm not good at anything”, „my future is dark” ,these are the most frequent in the case of depressive disorders. All the items aren't grouped in subscales and they charge a single factor.

The rating and the administration: usually the individual administration is preferred, but in the case of group administration it is recommended that the group doesn't go over 15 persons, because if their number is bigger the number of examiners has to grow too, keeping the rapport of 1 examiner per 15 subjects.

The tested individuals autoevaluated themselves on the 5 points Likert scale, on each of the 15 items, it catches the frequency of the automatic negative thoughts that the subjects had in the last 4 weeks.

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