Attribution Style of Patients with Depression

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SUMMARY

Introduction The role of attribution in psychopathology has been investigated most systematically within the depression context. The presumption which makes people depressive consists, to an excessive degree, of internal, stable and global attributions to negative occurrences. Negative attributions for unpleasant events are associated with the loss of self-respect which follows.

Objective Establishing the characteristics of attribution style of depressive patients.

Methods The investigation included 62 subjects. The first group consisted of 32 patients with endogenous depression in remission. The second group included 30 healthy subjects. The characteristics of attribution style, in both groups, were tested by the Attribution Style Questionnaire (ASQ).

Results The group of depressive patients, in comparison with healthy subjects, exhibited a significantly more marked internal attribution for negative events ($t_{(60)}$=-3.700; p<0.01) and global internal negative attributions ($t^{(60)}$=-4.023; p<0.01). There was no significant difference between the groups in the stability of these negative attributions ($t_{(60)}$=-1.937; p>0.05), and also the composite score which represents the measure of hopelessness did not make a significant difference between depressive and healthy subjects ($t_{(60)}$=-1.810; p>0.05).

Conclusion Depressive patients exhibit an inclination towards internal and global attribution for negative events. These negative attributions do not have stable character, i.e. these attributions vary in time. Characteristics of attribution judgments of depressive people do not represent a permanent pattern within their cognitive style.

Key words: attribution style; endogenous depression; ASQ

INTRODUCTION

Attribution is a subjective interpretation of events, i.e. it is the cause that a person ascribes to some event, most frequently a stressing one [1]. Attribution style represents a tendency to explain events by our own actions, or actions of forces and causes, persons or surroundings, which are external [2]. It is stated by attribution theory that the way of adaptation to negative uncontrollable events is determined mostly by a person's answer to the question "Why?". Thus attribution judgments take place related to a cognitive factor of learned hopelessness, and are represented as mediators between unfavourable events and problems of living. An attribution model predicts that pessimists, more than optimists, will exhibit hopelessness when they experience an unfavourable event [3]. On the contrary, healthy persons are generally inclined towards internal attributions for positive events (the reasons are found within oneself), and external attributions for negative events (the reasons are attributed to external circumstances and persons).

The role of attribution in psychopathology is most systematically investigated within the context of depression. It is assumed that depressive persons have latent negative convictions about themselves which are susceptible to activation by negative life events [4]. Namely, the presumption that makes people depressive consists, to an excessive degree, of internal, stable and global attributions to negative occurrences. Negative attributions for unpleasant events are associated with the loss of self-respect

that follows. For instance, if an attempt to find a job ends unsuccessfully, a depressive person will seek the cause in his/her personal insecurity or insufficient ability to force one's way, or even in incapability to fulfill the requirements of the job; he/she will be convinced that these causes will be constantly present in the future attempts to find a job and will believe that these causes (of personal inadequacy) will influence all other life areas. Several investigations have confirmed this hypothesis [5, 6], and some further investigations showed that such, pessimistic, type of attribution in healthy persons formed vulnerability towards future depression [7, 8, 9].

Studies that utilized the Attribution Style Questionnaire (ASQ) [10] reached a surprising agreement of the results concerning attribution style of depressive people [11, 12]. However, measuring of attribution processes is still full of problems. ASQ was especially criticized because of its low reliability [13]. Besides, some later studies [14], which utilized other instruments for the investigation of attribution style, showed that the attribution style of depressive people was far more labile than that of healthy persons.

OBJECTIVE

Considering the lack of studies on these aspects of depression in Serbia, it was desirable to investigate the characteristics of the specific system of attribution of depressive patients in our country, and to establish if these patients had a characteristic attribution style.

METHODS

Subjects

The investigation included two groups of subjects, of both genders, aged between 31 and 59. The first group consisted of patients with endogenous depression according to ICD-10 (presence of severe depressive episode with psychotic symptoms), who were hospitalized at the Institute of Psychiatry, Clinical Centre of Serbia, and in the Neuropsychiatric Hospital "Dr Laza Lazarevic". Exclusive criteria included the following: the appearance of clinical depression within schizophrenia, somatic or neurological diseases; recorded neurological disorder (brain insult, epilepsy, head trauma); recorded abuse of substances or alcohol. The second group included healthy individuals. Age, gender and education level of the two groups were well matched.

Instruments

For depression estimation, appropriate scales were applied on two occasions: on admission and during the remission stage: Hamilton Rating Scale for Depression (HRSD) [15] and Beck Depression Inventory (BDI) [16].

The characteristics of attribution style were investigated in the group of depressive patients and in the control group of healthy individuals, by one of the most frequently used instruments for the estimation of attribution style – ASQ [10]. This questionnaire contains 12 hypothetical events; half of these events are positive, and the other half negative. The subjects are asked to imagine themselves in the described situations and to write down the most important reason⁄cause that led to the outcome of each situation. Further, the subjects estimated the previously mentioned cause by attribution dimensions: locus (internal or external attribution), stability and globality. The estimation is performed by seven-degree scales of Lickerton type. This questionnaire actually requires that subjects form attributions to hypothetical positive and negative events and then estimate themselves concerning their own attitudes of attribution by three bipolar scales: internality – externality (the cause absolutely originates from me/myself – the cause absolutely originates from other people and circumstances); stability (the cause will never be present – the cause will always be present); globality (the cause influences only certain area of living – the cause influences all areas of living).

Procedures

Investigation of attribution style was performed during euthymic interval, which was defined according to the following criteria: 1) that the total score at HRSD is reduced to 7 or less, which represents the limit score for describing the patients as euthymic; and 2) that the total score at BDI is reduced to 9 and less, which describes individuals that are not depressive.

RESULTS

Sample characteristics

The group of depressive patients consisted of 32 subjects of both genders (14 males and 18 females). Average age was 48.25 years, with the range between 31 and 56 years (Table 1). Duration of education ranged between 9 and 19

Table 1. Main demographic characteristics of the depression group

Data	$\overline{X}$	SD	Min-max
Age (years)	48.25	7.80	31-56
Education level	13.37	2.70	9-19

Table 2. Characteristics of the depressive syndrome in the depression group

Data	$\overline{X}$	SD	Min-max
Duration of illness (years)	7.03	4.21	3-18
Number of hospitalizations	4.56	1.42	22-30
HRSD I	30.21	4.65	3-7
HRSD II	6.01	2.17	0-7
BDI I	36.41	4.61	30-52
BDI II	7.34	1.53	4-9

HRSD I – Hamilton Rating Scale for Depression in the beginning of treatment; HRSD II – Hamilton Rating Scale for Depression (in remission); BDI I – Beck Depression Inventory in the beginning of treatment; BDI II – Beck Depression Inventory (in remission)

Table 3. Main demographic characteristics of the healthy group

Data	$\overline{X}$	SD	Min-max
Age (years)	47.73	6.59	36-59
Education level	13.56	2.54	11-20

Table 4. Descriptive statistical parameters for ASQ

Variable	Depressive patients		Healthy subjects	
	$\overline{X}\pm SD$	Min-max	$\overline{X}\pm SD$	Min-max
Composite negative attributional style	14.12±2.77	9.5-20	11.78±2.21	6.83-17.50
Composite positive attributional style	13.70±2.84	8.13-17.33	15.36±2.26	11.55-19.38
Composite positive minus composite negative	-0.44±4.55	-8.20-4.83	3.50±2.54	-4.79-6.50
Internal negative	4.78±1.06	2.50-6.66	3.87±0.83	2.63-6.16
Stable negative	4.75±1.02	2.80-6.33	4.29±0.85	2.83-6.00
Global negative	4.56±1.18	2.50-7.00	3.39±1.09	0.56-5.50
Internal positive	4.33±1.06	2.53-6.00	5.18±0.87	2.83-6.66
Stable positive	4.74±1.17	2.72-6.50	5.30±1.04	2.77-7.33
Global positive	4.50±1.10	2.50-6.00	4.70±0.93	2.33-5.83
Hopelessness	4.48±1.05	2.82-6.66	4.03±0.90	2.58-6.75
Hopefulness	4.62±0.96	2.82-6.16	4.76±1.10	2.16-6.49

years, the average value being 13.37 years. The characteristics of a depressive syndrome in the active stage of the disease (Table 2) were obtained by the application of HRSD and BDI. The scores indicate the presence of the depressive syndrome of marked intensity. The disease duration ranged between 3 and 18 years, with the average value of 7.03 years, and the number of hospitalizations ranged between 3 and 7, with the average value of 4.56. During the application of ASQ, it was established that the patients were in euthymic stage, which was confirmed by the scores of HRSD and BDI (Table 2), which were applied once more after clinical recovery established on the basis of ICD-10 criteria (International Statistical Classification of Diseases and Related Health Problems 10th Revision).

The group of healthy subjects included 30 subjects, 13 males and 17 females. The average age was 47.73 years, with the range between 36 and 59 years (Table 3). Duration of education varied between 11 and 20 years, with the average value of 13.56 years.

Differences between the groups in main demographic and general cognitive characteristics show that the groups are well matched from the aspect of age ($t_{(60)}$=-0.280; $p>0.05$) and educational level ($t_{(60)}$=0.286; $p>0.05$).

Results of attributional style analysis in depressive patients

The analysis of specific mode of attributing the significance to events was performed on the basis of ASQ scores in the depressive group. The results of this test for the group of depressive patients and the control healthy group are presented in Table 4.

Composite score of negative attribution style is significantly higher in the depressive patient group in comparison with healthy individuals ($t_{(60)}$=-3.644; $p<0.01$), while the composite score of positive attribution in the depressive group is lower than in the healthy one ($t_{(60)}$=2.525; $p<0.05$). Composite score of the difference between attribution styles in the investigated groups indicates the domination of negative over positive attribution in depressive patients ($t_{(60)}$=4.169; $p<0.01$), while in healthy subjects the dominant attribution is positive.

The analysis of individual dimension scores showed that in the group of depressive patients, internality, i.e. internal attribution for negative events is significantly more marked than in the healthy group ($t_{(60)}$=-3.700; $p<0.01$), as well as globality of internally negative attributions ($t_{(60)}$=-4.023; $p<0.01$). The stability of these negative attributions is not significantly different in the two groups ($t_{(60)}$=-1.937; $p>0.05$), which means that negative attributions in depressive patients vary in time to the same degree as in the healthy subjects.

In the control healthy group, in comparison with the depressive group, the tendency towards internal attribution for positive events ($t_{(60)}$=3.413; $p<0.01$), as well as the stability of positive attribution ($t_{(60)}$=2.009; $p<0.05$), were significantly more marked. The globality of positive attribution makes a significant difference between the groups ($t_{(60)}$=1.770; $p<0.05$), indicating not only that the depressive patients are not inclined to positive attributions, but also that their rare positive attributions do not have a generalized character.

The composite score representing the measure of hopelessness does not make a difference between the two groups ($t_{(60)}$=-1.810; $p>0.05$), which means that depressive patients do not have lowered self-confidence in comparison with healthy individuals. In accordance with this result is the finding that the presence of hopefulness does not make a significant difference between the groups ($t_{(60)}$=-0.532; $p>0.05$).

DISCUSSION

The analysis of attribution style, according to the ASQ parameters, showed an inclination of depressive patients towards internal and global negative attribution. However, these negative attributions did not have a stable character, i.e. they varied in time.

According to the reformulated model of learned helplessness [1], the way people answer the question "Why?" helps in determining their adaptation to an event. The style of a person's explanation determines the degree to which the learned helplessness is stable, penetrating and how much it reduces self-confidence. Thus internal attributions for negative events, which are characteristics of the depressive group, are connected with the loss of self-respect that follows. This model also suggests that the globality of common explanation, which is also detected in the depressive group, predicts generalization of adaptation deficiencies in various situations. However, in the depressive group, no significant problems in adaptation were found. Namely, the attribution judgments of the depressive patients did not fulfill the criteria of stability, i.e. negative attributions of the depressive patients varied in time in the same way as in healthy individuals. This means that a depressive person will not have greater adaptation deficiencies in the situations of exposure to an uncontrolled unpleasant event, or at least, adaptation problems in these patients will be the same as in healthy individuals.

Internal attribution for negative events will tend to put in motion stored ideas of oneself (convictions and autobiographic memories) which correspond to these attributions, and thus to increase the discrepancy between convictions about oneself and the ideal. So, latent negative convictions about oneself that are present in depressive patients [4] are susceptible to the activation by negative life events. The attribution may influence the mood affecting self-representation, in such a way that pessimistic attributions for negative events decrease self-respect.

Investigations confirm that attribution style is connected with multiple depressive variables, but the problem of its stability in time is still under discussion [17]. Longitudinal studies have pointed out that pessimistic style of attribution, believed to play the causative role in depression, is more visible during depressive mood than during euthymic interval [18].

The results of our investigation do not confirm the connection between hopelessness, measured by ASQ and

depression, the same as the "degree/level" of hopefulness presence does not make a significant difference between the depressive group and the healthy group. According to the attribution theory, the loss of self-confidence is expressed through the measure of hopelessness, but this is not a characteristic of the depressive patients, in spite of lower self-respect which has been recorded in this group through measuring of control locus (internal negative attribution against external attribution). This finding, surprising at first glance, imposes an important question: has the group of depressive patients exhibited higher confidence in future because it was in euthymic stage during the investigation or the experience of hopelessness has been present to a certain degree also in the group of healthy individuals due to some present non-clinical mood disorder? Our results do not yield the answer to this question, which requires further investigation and a detailed analysis, considering that in this study the standardized scales which estimate the presence and severity of depression in healthy subjects were not applied. Besides, it is likely that people differently understand the questions from ASQ [19], which makes the measurement of the attribution processes still very complex. Kinderman et al. [20] compared estimations of attribution attitudes of paranoid, depressive and healthy individuals on ASQ by independent arbiters, and they found that they were very frequently in discrepancy with the self-estimation of the participants. The finding of lower self-respect of depressive patients, but without loss or decrease of self-confidence, which follows from our investigations, is a paradox and it leads to a reconsideration of the reliability and validity of the applied instrument.

The results of our investigations, in spite of confirming the tendency of depressive patients towards internal and global attribution for negative events, have not recorded the attribution dimension of stability in these subjects. A possible explanation for this is that the characteristics of attribution styles in depressive people do not represent a permanent pattern within the cognitive style. Depressive patients were examined during the euthymic phase, within the period of adequate mood which could be the main factor for instability of negative attributions. Prospective studies of attribution style might yield more reliable data on the characteristics of attribution in depressive people and also solve the problem of stability, i.e. of attribution variations in time. Lack of such investigations in Serbia prevents a comparison of the findings on attribution styles of depressive and healthy persons on the samples of our participants, which would otherwise enrich our knowledge on attribution styles in general.

CONCLUSION

The assumption about characteristic attribution style in the patients with endogenous depression has been confirmed; pessimistic style of attribution in depressive people implies that a stressing event is explained by internal causes which are global, meaning that they will be applied to a wide area of situations; their influence is not long-standing considering that attributions of depressive people do not have stable quality.

Depressive individuals will not have significant deficiencies in adaptation to the stressful situation, which means that adaption deficits will be the same as in healthy individuals.

The relation between hopelessness and depression was not confirmed. Further, there is no significant difference between depressive and healthy individuals in the presence of hopefulness.

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Атрибуциони стил депресивних болесника

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КРАТАК САДРЖАЈ

Увод Улога приписивања у психопатологији је најсистематичније истражена у контексту депресије. Претпоставка која чини људе депресивним се у великој мери састоји од унутрашњих, стабилних и општих приписивања негативним појавама. Негативне атрибуције за лоше догађаје су повезане са губитком самопоштовања које следи.

Циљ рада Циљ рада је био да се утврде одлике атрибуционог стила депресивних болесника.

Методе рада У истраживање су укључена 62 испитаника која су сврстана у две групе. Прву групу су чинила 32 болесника с ендогеном депресијом у ремисији, док је другу групу чинило 30 здравих особа. Одлике атрибуционог стила су у обе групе испитиване Упитником атрибуционог стила (*Attributional Style Questionnaire – ASQ*).

Резултати У групи депресивних болесника су значајно израженији унутрашње приписивање за негативне догађаје ($t_{(60)}$=-3,700; $p<0,01$) и општост унутрашњих негативних атрибуција ($t_{(60)}$=-4,023; $p<0,01$). Стабилност ових негативних приписивања није значајно разликовала групе ($t_{(60)}$=-1,937; $p>0,05$), а ни композитни скор, који представља меру безнадежности, не разликује значајно депресивне и здраве особе ($t_{(60)}$=-1,810; $p>0,05$).

Закључак Депресивни болесници испољавају склоност ка унутрашњем и општем приписивању за негативне догађаје. Ова негативна приписивања нису била стабилна, односно ове атрибуције се мењају током времена. Обележја атрибуционих судова депресивних особа не представљају трајан образац у склопу когнитивног стила.

Кључне речи: атрибуциони стил; ендогена депресија; *ASQ*

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