Cognitive restructuring and improvement of symptoms with cognitive-behavioural therapy and pharmacotherapy in patients with depression

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Background
Since 1960, psychological theories of maladaptive behavior began to change their focus from environment to expectation, control, decision and helplessness on the individual level. After 1965, M.E.P. Seligman introduces the concept of learned helplessness representing a giving up reaction determined by the belief that whatever you do it doesn’t matter.

According to theory [1] there are at least three types of inferences that people can make and this, changes the way people develop or not hopelessness followed by the symptoms of depressive lack of hope when confronted with negative life events [2]: 1) inference on the motive why certain events occur (inferred cause or causal attribution); 2) inference on the consequences which might result from events taking place (inferred consequences) and 3) inference on oneself given by events that have happened to oneself at some point (inference of personal characteristics).

In this study we will investigate the efficiency of cognitive-behavioural and pharmacotherapeutical interventions in changing depression symptoms and improving cognitive, emotional dysfunctions and perception of social support.

We investigate the relation between depression and dysfunctional causal attributions, perception of social support, self esteem, emotions and reaction to daily life stress.

Materials and methods
Pharmacotherapeutical group (PT). The study included 13 patients diagnosed with depression and at the first hospitalization they got disthemia or major depressive episode diagnosis, being subsequently treated.

Cognitive-behavioural therapy group (CBT) had 12 participants.

Control group (C), 13 participants, was selected considering their scores on SCL-90, DEP scale.

In diagnosis phase, subjects were given to fill in a set of scales similar to psychiatric patients, and it was applied again after 6-7 weeks and at the end of intervention. A group with high scores on BDI and SCL-90, indicating the presence of depression symptoms were tested only in pretest and posttest phases without being subjected to any therapeutic intervention. Participant admitted into the study formed three groups: pharmacotherapeutical group (PT), psychotherapeutical group (CBT) and control group (C).

Psychiatric patients were administrated with antidepressive medication. The psychotherapeutical group followed 18-20 sessions of therapy (one hour average session) over a period of 15 weeks; twice a week in the first two and once a week for the remaining.

In this study we used the following scales: SCL-90; ASQ; SGC; SERV; POMS and SMSSP.

Attributional Style Questionnaire (A.S.Q) is an instrument that measures the "explaining style" patterns representing the tendency of selecting certain causal explanations for favorable or unfavorable events.

Symptom Check List 90-R [3] is an instrument which evaluates the gravity of the symptoms reported by patients. The internal consistency of its subscales is situated between .75 and .86 and for ISG it is .97. Test-retest trust quotient of the two testing phases (T1 and T2) is between .77 and .87.

Multidimensional Scale of Perceived Social Support is an instrument projected to measure the way people...
perceive social support from three sources: family, friends and significant others. Internal consistency is .91 (12 items). Test-retest trust quotient of the two testing phases (T1 and T2) is between .67 and .80.

Kohn and Macdonald [4] proposed Survey of Recent Life Experiences which they validated starting from 92 items. The internal consistency of the total score was .90 (41 items). Test-retest trust quotient of the two testing phases is between .66 and .78.

Current Thoughts Scale, as its name suggests, underlines the importance of current feelings. The internal consistency of the SGC total score was .84. Test-retest trust quotient of the two testing phases is between .64 and .81.

In time, Profile of Mood States was accepted as an efficient way of measuring psychological stress. The internal consistency ranges between .90 (negative emotions) and .88 (positive emotions). Test-retest trust quotient is between .31 and .56.

Results

After the first 6-7 sessions we can see an increase of self esteem as a state in patients following CBT \([t(11) = -2.684, p < .02]\), an improvement in the perception of support from others in general \([t(11) = -2.368, p < .03]\) and family support in particular \([t(11) = -2.534, p < .02]\). In PT group there is an unexpectedly increase of friends support \([t(12) = -2.226, p < .02]\).

Negative attributional style or depressogenic style is decreasing between T1 and T2 \([t(11) = 4.568, p < .001]\) proving the efficiency of CBT (compared to PT) in improvement of cognitive symptoms of depression.

Yet, depressive attributional style in CBT3 is significantly decreasing compared to PT3 proving the efficiency of the cognitive level intervention. On the emotional level, the CBT and PT interventions are equally efficient, fact also sustained by the outcomes compared to C2. Therefore, CBT and PT can generate a decrease of negative emotions. Improvement of symptoms is obvious in CBT3 and PT3 compared to C sample.

We consider CBT superior to PT in producing changes on the level of cognitive symptoms, indicating a better posttreatment prognosis and a lower rate of relapses.

The significant statistic outcome for negative internal \(\times\) group interaction shows that the two factors are not acting independently but in a moderating relation. Both variables are statistically significant (group type and negative internal). That allows us to say that each factor is moderating the relation of the other with the dependent variable (the change of depression symptoms from T2 to T3).

Conclusions

This research paper subscribes to recent preoccupations for psycho-social implications of learned helplessness in explaining human behaviour (Beck, 1991; Seligman, Schulman, DeRubeis & Hollon, 1999). We analyse the cognitive modifications and symptoms decrease due to cognitive-behavioural therapy (CBT) and pharmacotherapy (PT) in depression. We evaluate the efficiency of CBT compared to PT in socio-cognitive and symptomathological changes as well as the extent to which attributional changes in the first phase of CBT intervention are predictive for subsequent improvement of depression symptoms.

We showed that learned helplessness gives an efficient explanation for psychological depression and less for endogenous depression; this statement is sustained also by implementation of the study where we modified maladapтив attribution and the control perspective of the patients.

Finally, we offer a comment about what to measure. In accordance with the hypothesis suggested, we propose that in future studies, in addition to measures such as the ASQ, the following constructs be examined as mediators: (a) the acquisition of problem solving and skills the patient can apply in response to events and (b) the frequency with which the patient applies those skills in daily encounters during the course of therapy.

This research underlines, at a practise level, the implications of helplessness quantitative research in clinical psychology, and psychotherapy.

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References

1. Abramson LY, Seligman MEP, Teasdale JD. Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology 1978, 87:49-74.
2. Beck AT. Cognitive Therapy, A 30-Year Retrospective. American Psychologist 1991, 46:368-375.
3. Derogatis LR: SCL-90-R: Administration, scoring, and procedures manual. Minneapolis, MN: National Computer Systems 1994.
4. Kohn PM, Macdonald JE. The Survey of Life Experiences: A decontaminated hassles scale for adults. Journal of Behavioral Medicine 1992, 15:221-236.

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