CLINICAL AND GENDER DIFFERENCES IN COPING IN MULTIPLE SCLEROSIS PATIENTS

E. Nikolaev, N. Vasilieva, E. Litvinova

Ulianov Chuvash State University, Cheboksary, Russia

Abstract

The work was aimed at the research of psychological specificity of control in the sphere of cognitive, emotional and behavioral manifestations of the multiple sclerosis. 104 multiple sclerosis patients aged 19-64 were psychologically examined. A total of 73 patients were recognized as having relapsing-remitting course of multiple sclerosis (RRMS), while 31 patients had secondary progressive course of multiple sclerosis (SPMS). E. Heim’s questionnaire for psychological diagnostics of coping was used. The disease is accompanied by negative changes in the control process on cognitive, emotional and behavioral levels-by the weakening of the ability to make problem analysis of situations, lessening of optimism, suppression of emotions, deviation from aggression and the termination of cooperation. Manifestations of passiveness in the form of confusion and humility are increased. The individual becomes more religious. Men are mainly focused on cognitive adaptive coping, while women-on socially oriented coping. RRMS and SPMS, with regard to the sphere of personality psychical functioning, are characterized by domination of both adaptive and disadaptive control strategies. The given results can be taken into consideration in order to develop differential targets of psychological support for MS patients in the process of treatment.

Keywords: multiple sclerosis, coping, relapsing-remitting course, secondary progressive course

Nikolaev Evgeni L’vovich – Professor, Head of Department of Social and Clinical Psychology, Ulianov Chuvash State University, Cheboksary, Russia;
Address: 15, Moskovsky prospect, Cheboksary, 428015; phone: +7(8352)45-20-31;
E-mail: pzdorovie@bk.ru
Relevance

Control (coping) alongside with psychological defense is one of manifestations of the personality protective-control style (Isaeva, 2009). It is considered that control is based on the correlation between environmental conditions and individual personal resources of individual that make an adequate response to environmental conditions’ influence. Stable control models form control strategies (coping-strategies) (Dibrivnaya et al., 2013). Personality adaptation to the disease is accompanied by multilevel changes in the human organism (Lazareva, 2012), that often complicates the disease diagnostication and treatment (Nikolaev et al., 2016). That is why the control of a healthy person and of a sick person may differ greatly (Nikolaev et al., 2013). The research clearly demonstrated that multiple sclerosis (MS) clinical course is accompanied not only by peculiar personality changes (Vasilieva et al., 2015). Predominance of certain coping-strategies can determine the MS patient’s adherence to pharmacological treatment as well as make it possible to prognosticate the clinical course peculiarities in the future (Dibrivnaya et al., 2013). The results of MS patients’ examination give reason to hypothesis that patients’ personality stipulated conscious control competences, associated with everyday stress situations, can be a significant factor of depressive disorders. At the same time the stress factors, specific for MS patients, need further analysis (Nielsen-Prohl et al., 2013).

Speaking of the available information about MS patients’ control, the following established fact should be mentioned: MS patients resort to positive and problem-oriented strategies more rarely than to passive strategies of avoidance. However there are no authentic differences in coping-strategies of the patients, having more preserved cognitive functions, and those, having disturbed cognitive functions (Goretti et al., 2010a). The researchers also believe that cognitive disturbances, caused by MS, do not influence control strategies negatively. They attract one’s attention to the fact that patients, who find it difficult to perform operations on attention and actions, resort much more rarely to productive control strategies (Goretti et al., 2010b).

On examination of the correlation between control, neuropsychological deficiency and severity of the clinical state, caused by MS, it was determined that the patients preferring
active coping do not have essential distinctions from those who prefer distraction coping. Positive correlation interconnections between depression level and depressive and denial control strategies are revealed (Lee, Dedios, Fong, Simonette, & Lee, 2013; Mikula, Nagyova, Krokavcova, Vitkova, Rosenberger, Szilasiova, Van Dijk, 2014; Busch, Spirig, & Schnepp, 2014). Cognitive deficit growth of MS patients provokes the growth of depression level irrespective of specific control types (Haase et al., 2008). Researchers, examining the patient’s personality with the help of Rorschach’s projective technique of ink-stains, confirm that a considerable part of MS patients prefers avoidance styles of control (Ozura et al., 2010).

Taking into account the fact that literature information of specific character of MS patients’ control strategies is rather contradictory, it is worthwhile to define more exactly the scientific concepts of the role of control with the help of clinical-and-psychological research (Roubinov, Turner, & Williams, 2015; Strober, & Arnett, 2016; Bobrova, Shishkina, Varlamov, Shepeleva, 2012). That is why the present work is aimed at the study of psychological specific character of control in the sphere of cognitive, emotional and behavioral manifestations of the MS patient personality, as well as their characteristic with regard to sex and clinical variants of the disease course.

Materials and methods

A total of 104 patients were subjected to experimental psychological examination: 25 males and 79 females aged 19 to 64 years with clinically verified multiple sclerosis diagnosis and clinical variants of disease course most frequently occurring in the hospital. In the course of examination all the patients had hospital treatment in neurologic department of Republic clinical hospital in Cheboksary. In 73 patients relapsing-remitting multiple sclerosis (RRMS) was diagnosed, in 31 patients - secondary-progressive course of multiple sclerosis (SPMS).

The examination was based upon E. Heim’s (Heim et al., 1997) technique of coping-mechanisms’ psychological diagnostics, which made it possible to learn scrupulously 26 situational specific variants of control, subdivided according to three major spheres of psychic activity into cognitive, emotional and behavioural variants of control. These variants are subdivided in their turn into adaptive, relatively adaptive and nonadaptive
control mechanisms. The results of healthy persons’ examination by the same technique were considered as normative indexes (Nikolaev et al., 2016). The following control indexes were compared: control indexes of the MS patients and healthy people, of male and female MS patients and of MS patients with two clinical variants of disease course: RRMS and SPMS.

Mathematical-statistical processing of the obtained results was based on calculation of portions’ indexes, their ranking and their comparison in different groups. Reliability of differences was defined by calculation of z-criterion for portions. Programme Statistica 10.0 was used for calculations.

Results and their discussion

Clinical-and-psychological examination showed that MS patients and healthy persons have reliable differences in the preferred control strategies on every level of psychic sphere functioning.

Thus, on the cognitive level of coping MS patients choose disadaptive control strategies more often (z=2.998; p=0.003), and adaptive control strategies - less often (z=3.141; p=0.002) than healthy persons. In particular they turn to adaptive strategy of problem analysis (that induces them to think everything over, to analyse and consequently to form the concept of the situation) more than one and a half times rarely (z=1.964; p=0.050). MS patients begin to turn to the disadaptive humility strategy (z=2.780; p=0.005) and to disadaptive confusion strategy (z=2.561; p=0.010) two times more often, that means they are inclined to passivity, submission and self-abasement, helplessness, hesitation and uncertainty. Also it is determined that MS patients turn three times more often than healthy persons (z=3.305; p=0.0001) to relatively adaptive strategy of religiousness, owing to which they associate their fate with Providence and thus fully commit their life and future to the God.

At emotional level of coping the MS patients use adaptive control strategies (z=2.099; p=0.036) more rarely than healthy persons, that is confirmed by their more rare resort to the optimism strategy (z=2.914; p=0.004) and more frequent suppression of emotions (z=1.988; p=0.047). They view the matter positively much more rarely and their confidence in the future is much less. They perceive the world more suspiciously, and do not believe that
each problem can be solved like healthy persons do. They are more restrained because to a greater extent they tend towards suppression of their positive, as well as negative, emotions. The MS patients will never accept such behavioral control strategy as aggressiveness with manifestations of malice, fury and tendency to cause damage to other people.

At behavioral level of coping the MS patients use disadaptive control strategies authentically more often \((z=2.587; \ p=0.010)\) and therefore they turn more rarely to adaptive cooperation strategy \((z=3.209; \ p=0.001)\), which enables a person to use positive interaction with other people, significant to him, in order to overcome his own difficulties and problems.

Research of coping peculiarities in case of MS also included the study of control specificity with regard to sex of the patients. Analysis of MS patients’ portions indexes of control with regard to their sex did not show any significant differences as far as the frequency of turning to certain coping strategies is concerned.

More detailed information was obtained during analysis of the rank character of control strategies’ distribution. There was determined that at cognitive level the majority of males with MS choose adaptive strategies \((45.5\%)\), and females - disadaptive strategies \((38.67\%)\). More particularly this phenomenon is revealed by males’ more frequent turning to adaptive strategy of problem analysis \((22.73\%)\) with its capabilities of logical comprehension and explanation to oneself of the current events and actual situations, and females’ turning to relatively adaptive relativity strategy \((14.67\%)\), which allows to compare own problems with other people’s problems, and only on the basis of this comparison to reduce significance of own problems.

At the emotional level of coping both, the males and the females, with MS more frequently resort to adaptive strategies \((50.00 \text{ and } 58.67\% \text{ correspondingly})\), namely to optimism strategy with its capabilities of positive perception of the events and confidence in positive prospects \((40.91 \text{ and } 50.67 \text{ correspondingly})\). At the same time it was revealed that only females prefer the disadaptive strategy of self-accusation with admittance of one’s own mistakes and natural “payment” for them \((5.33\%)\). Males ignore this strategy completely.

Sex differences were also defined when examining coping behavioral forms. It is determined that both, the females and the males, turn to adaptive \((36.36 \text{ and } 37.33\%)\) and disadaptive \((36.36 \text{ and } 34.67\%)\) strategies equally often.
Considering the structure of sex differences at behavioral level of control we can come to the following conclusion. The most typical behavioral variant of control of both, the males and the females, is disadaptive strategy of active avoidance with conscious seeking for permanent deviation from the sources and situations of troublesome effect (31.82 and 18.67% correspondingly). The second place among males is taken equally frequently by the relatively adaptive distraction strategy with reduction of own problems’ significance as compared to other people’s problems (18.18%); and among females - adaptive appeal strategy, revealing their search of people able to render assistance and give a piece of advice 17.33%.

Analysis of control peculiarities of MS patients, taking into account specific character of the clinical course, arouses particular interest. In this work a comparison of coping indexes of MS patients having the relapsing-remitting course (RRMS) and the secondary progressive course (SPMS) has been made.

In the course of the research it was determined that at cognitive coping level disadaptive control strategies are more preferable for RRMS patients (44.12%), and adaptive control strategies - for SPMS patients (44.83%). SPMS patients resort more than three times more frequently to relatively adaptive religiousness strategy with its admission of predetermination of all events, including disease, influence of Heavenly forces (z=2.054; p=0.040), and to adaptive strategy of self-significance attitude (z=1.921; p=0.055), providing the patient with assurance that sooner or later he will overcome all difficulties.

The peculiar feature of coping emotional level in case of MS is that both, the RRMS patients and SPMS patients are inclined more often to adaptive control strategies (60.29 and 48.28% correspondingly).

Analysis of behavioral forms of coping during Multiple Sclerosis has shown that RRMS patients are more likely to choose adaptive control strategies (41.18%) whereas SPMS patients choose disadaptive control strategies (41.38%). It was also discovered that an SPMS patient had a tendency to refuse the adaptive strategy of cooperation, which helps to overcome difficulties in the process of productive interaction with people, whereas in case of RRMS every 7th patient chooses this strategy of control.
Data that we have obtained from our research show that MS patient personality traits and their coping features are closely connected and correlate with the disease clinical picture, which in turn corresponds to the information from the literature sources (Rätsep et al., 2000; Farran et al., 2015; Strober, 2016). Records regarding MS gender related coping particularities are represented in the scientific literature as an individual work (Strober et al., 2015) and therefore results of that work is of particular interest for the MS patients’ treatment.

**Conclusion**

Examination of psychological features of control with regard to cognitive, emotional and behavioral personality manifestations as well as to sex and clinical variants of the disease course has shown the following. Personality structure of people with multiple sclerosis is represented by both adaptive and disadaptive control strategies of different degree of manifestation regardless of sex and clinical variant of the disease course (RRMS and SPMS).

The disease is accompanied by negative changes in the control process at cognitive, emotional and behavioral levels - by the weakening of the ability to make problem analysis of situations, lessening of optimism, suppression of emotions, deviation from aggression and the termination of cooperation. At the same time the manifestations of passiveness in the form of confusion and humility are increased. The individual becomes more religious.

With regard to sex differences, males and females suffering from multiple sclerosis reveal different tendencies in the implementation of more adaptive strategies of control. Males are mainly focused on the cognitive adaptive coping, while females are focused on the socially oriented coping.

RRMS and SPMS, with regard to the sphere of personality psychical functioning, are characterized by domination of both adaptive and disadaptive control strategies. The personality of an SPMS patient possesses the resource of adaptability increase due to an increase of self-significance and religious orientation of consciousness, and the resource of adaptability decreases due to deviation from co-operation tactics in solving the vital problems.

The given results can be taken into consideration in order to develop differential targets of psychological support for MS patients in the process of treatment.
References


