

ART BASED EDUCATION AS THE MEAN OF IMPROVEMENT COMMUNICATION SKILLS OF PERSONS WITH NEUROLOGICAL CONDITIONS

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Abstract

Art education could be applied improving of communication skills in patients with multiple sclerosis. Applied art education activities based on the pilot research data proved that personal motivation for active participant in social life could be promote by optimizing communication skills. Problems of communications skills in MS first of all are linked to somatic and neurological problems, but from the point of view of social paradigm – person's communication problems deals with effective social participation and social involvement into society. It becomes an essential issue of social participants and integration talking about the concept of long life learning. The aim of research is to prove and reveal changing characteristics of communication skills of MS persons under the influence of art education.

KEY WORDS: Communication dimensions, art based education; patients with multiple sclerosis.

Introduction

Due to a vast array of affected areas of the central nervous system, any type of dysarthria is possible. Persons have problems with prosody, phonation and articulation also. Characteristics of speech difficulties include harsh or breathy voice, difficulties with control the pitch, rate, and volume. Around 23 of people with MS are thought to have difficulties with articulation and 13 have some form of hypernasality.

One of possible ways to influence changes in dimensions of social communication is application of art education as a form and precondition of social integration. Communication is a complex phenomenon in which psychical, motor, cognitive activities are involved. Perception of speech, understanding of social interaction and situation, the content of message are the main requirements for social participation and public activities. Beversdorf, White, Cheever, Hughes, Bornstein (2002) points out, that communication problem can occur due to cognitive, motor and behavioral or emotional disturbances. Often these characteristics of communication are impaired facing with multiple sclerosis. Disease is defined as non-contagious, lifelong chronic disease that causes symptoms of motor impairment, language, memory, deficits of cognitive activity and problems in communication that depends on the level of impaired areas of the cortex. Such impairments sometimes facilitate non-adequate behavior models (Diekamp, Kalt, 2000; Blaney; Lowe-Strong, 2009). Changes in behavioral performance are closely connected with cognitive deficit such as difficulty performing multiple, complex tasks, heaviness following detailed instructions, loss of short term memory, emotional irritability, and highly expressed fatigue.

Mentioned symptoms burdens early acquired communication skills and blocks the forming of new ones. Other problem related with the problems in communication is depression, as well as feelings of anger, anxiety, frustration and hopelessness. Usually, people with MS have emotional problems in interacting with environment. Situations that excludes (or partly excludes) person from usual social activities, that gives him self-satisfaction, creates state of despair and feeling of loneliness. Impairment of cognition and high-level language functions are symptoms that stands out against MS background. Communication closely connected with memory processes: it requires the ability to remember and relate information, to draw conclusions and to express them in words and structured sentences. Personal activity, cognitive flexibility and behavior appropriateness are necessary for pragmatic competence in this domain, which means *competence in social communication* (Beversdorf, White, Cheever, Hughes, Bornstein, 2002).

Process of neurological condition has negative impact for the maintenance of a positive quality of life and psychosocial well-being. Even the minimal communication impairment can influence the successful interaction achieving occupational, personal and interpersonal goals. As MS typically occurs in early adulthood and it is long lasting process; some patients with MS have to cope with communicative difficulties for the greater part of their adulthood – the most productive and creative period of human life. Declining amount of people with whom MS patients could develop relations leads to social exclusion. Patients with MS may have difficulty in understanding involutes structures of language, integrating and recording spoken or written information, drawing conclusions or understand context. Communication

disorders occur due to the several typical factors that are conditioned by MS: insufficiency in perception, verbal conceptual reasoning, and sentence construction. Insufficiency of communication skills leads to lack of person's self-awareness, stressed social situations. The impact of these problems on daily life is high and can lead to isolation, getting into the groups of socially disadvantage persons and to decreasing the level of activity and participation in work and social life and education.

Persons face with a lack of interest coming from the nearest environment, it leads to less motivation and it means - less communication. Other area in which people with MS face with outcomes of communication disorders are situations of social participant in which become obvious verbal initiative and support in keeping conversation. Hence, that such psychological condition of persons with MS interferes with effectiveness of communication, as well. Lack of self-awareness, constructive behavior and mood state: depression, anxiety, difficulties in concentration, emotional liability, first of all (Renom, Nota, Martinell, Gustafsson, Warinowski, Rosa Terré, 2007).

Authors (Fox, Goodheart, 2001; Malchiodi, 2003) mention other aspect that affects communication skills of patients with MS is fatigue that could be assessed as one of the essential features of MS. It differs between normal tiredness and fatigue associated with MS. Fatigue that typical to MS is requires physical and mental efforts, but the feeling of tiredness is much stronger than would normally be expected. Due to extremely unstable balance of energy and it's of dissipation, mental functions also affected by fatigue. Maintenance of communication skills, talking about social rehabilitation of persons with MS, art based education could be effective. The application of art therapy and analysis of modeling perception and life through the arts could be one of the goals of treatment. Art education in connection with art therapy could serve as well as the treatment, assessment or research of mental health issues of persons with MS. This type of psychotherapy is based upon the presumption that person indirectly involved in life-enhancing creative processes and analyses of these processes and models in order to increase self awareness and empathy, to set more close relationships (or renew) with external reality and within one's self, improve skills to cope with problems, negative experiences or psychic trauma, at the same time changing his/her cognitive abilities participating in creative processes. As involvement in art education session is voluntary processes it acts as deliberate long lasting curative motive.

Art therapy is effective way to help people to master with anxiety, depression, and other mental or emotional problems and disorders, trauma and loss; physical, cognitive, and neurological problems; and psychosocial difficulties related to medical illness that integrates the all fields of human development, and could by applied solving problems of different societal groups. It is Art therapy as curative activity has generated many specific definitions, but mostly two general categories are used. The first involves a belief in the specific input of the creative process as therapeutic. Any art making is seen as an opportunity to express one's self imaginatively, authentically, and spontaneously, an experience that, over time, can lead to personal fulfillment, emotional reparation, and recovery (Malchiodi, 2006). The other one definition of art therapy is based on the idea of arts as symbolic communication. This approach emphasizes the products as helpful in communicating issues, emotions, and conflicts. According this approach art becomes significant in developing and initiating verbal interpersonal activity, in achieving insight; resolving conflicts; solving problems; and formulating new perceptions that in turn lead to positive changes, growth, and healing (Malchiodi, 2006). While learning process the brain physically changes, having positive emotional background. Emotions arise and come into play due to modification adrenalin, serotonin, and dopamine in synapses. Dopamine has their primary effects on our frontal cortex. Dopamine is produced in the brainstem, which is the oldest part of the brain evolutionarily speaking, but the dopamine is released in the newest region of cortex, the part that we use to create ideas, make decisions, and plan our actions (Zull, 2002). The misbalance of hormone in MS mentioned by many researchers (Richards, Roberts, Mathers, Dunstan, McGregor, Butt, 2000; Pall, 2001; Pall, Satterlee, 2001), suppose idea, that art education on people with MS could actuate positive changes in production of hormones that are significant for cognitive activities. Changing connections in the brain is inwardness of learning. Art engage individual's state emotionally. To seek any results person must show some intensity of effort and focus for learning. It also changes the brain.

Working with people suffering form MS supportive relationship between person and educator is necessary to guide the art-making experience and to help the individual find meaning through it along the way, as well as, to give the art product personal meaning - to sense and name a problem (Malchiodi, 2006; Malchiodi, 2003; Buchalter, Susan I., 2004). Art educator facilitates exploration, observing and trying to understand an inner change, that's why in many cases educators use art therapy as assessment and evaluation of emotional, cognitive, and developmental conditions. Slight difference could be defined

between terms *art therapy* and art based *education as therapy*. The second term is more orientated to art education that could have a meaning of facilitating communication abilities, changing person's point of view solving personal interaction problems.

Object of the research: Changes of communication skills in persons with MS using two kinds of art based education (movement therapy and decoupage).

Aim of the research: To reveal the changes of communication skills applying art based education using movement therapy and decoupage.

Extent of the research: 46 patients with MS from Lithuania north region. Age of participants was from 33 to 49 years old.

Methodology and method of the research:

Theory of *Reasoned Action* suggests that a person's behavior is determined by his/her intention to perform the behavior and that this intention is, in turn, a function of his/her attitude toward the behavior and his/her subjective norm. The best predictor of behavior is intention. Intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. This intention is determined by three things: their attitude toward the specific behavior, their subjective norms and their perceived behavioral control (Aronson, Wilson, Akert, 2003). Main methodological issues that help to understand and shape communication issues in persons with MS were *health believe* model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and beliefs of individuals (Glanz, Rimer, Lewis, 2002) and *theory of planned behavior*, as well.

Questionnaire for setting up changes in communication skills under the influence of art education of persons with MS was designed. It consists of three blocks: a) Demographic information; b) Evaluation of education sessions; c) Self evaluation of changes in own communication skills. The research data was computed using methods of descriptive statistics.

The content of art therapy sessions were based on the practice of movement therapy and decoupage. Movement therapy (Vikström, Josephsson, Stigsdotter-Neely, Nygård, 2005) points out possible improvement of motor speed, and coordination, arm-hand spatial capabilities, spoken word flow, and short term memory regarding persons functions areas. Every session took part during two hours, punctuated by one twenty minute pause, once a week under the leadership of trainer. Duration of movement therapy was 4 months.

Sessions begins with a greeting, followed by deep breathing exercises and stretching movements which are accompanied by classical music. Then trainer gives a detailed instruction of the new rhythm sequence to be learned. The goal of session is to learn an entire score, consisting of many learned sequences of music and corresponding body movements. The entire score can last between three to four minutes in duration.

Another kind of art based education form that was applied is decoupage. It is a kind of art therapy in which art therapy sessions, the focus is on person's inner experience- feelings, perceptions, and imagination Malchiodi (2006). While art therapy social skills are involved, the emphasis is generally first on developing and expressing images that come from inside the person, rather than those he or she sees in the outside world. Supportive relationship with trainer is necessary to guide the art-making experience and to help the individual find meaning through it along the way. Important aspect – is the attendance of the individual to her own personal process of making art and to giving the art product personal meaning - i.e., finding a story, description, or meaning for the art. Decoupage sessions were organized 4 months, once a week, two hours each.

The research data was computed using methods of descriptive statistic. In study we present reliable data that was significantly proved by methods of SPSS computation program. The significance of independent variables was checked by Chi-Square test when score of measured attribute $p < 0,05$.

Analysis of the results

Changes of communication skills in patients with MS using art education were tested according to the aspects of age, participant in labor market and level of education. Research was done with volunteers who included in the list of permanent observation of neurologist. Women, who took part in this research, participate in the pilot study under the guidance of researchers of Faculty of Social Welfare and Disability Studies, Siauliai University (Fig. Nr.1). Art education sessions took place in university laboratory of

corrective physical activity during 6 months twice a week and were moderated by students who were prepared as trainers in art based education.

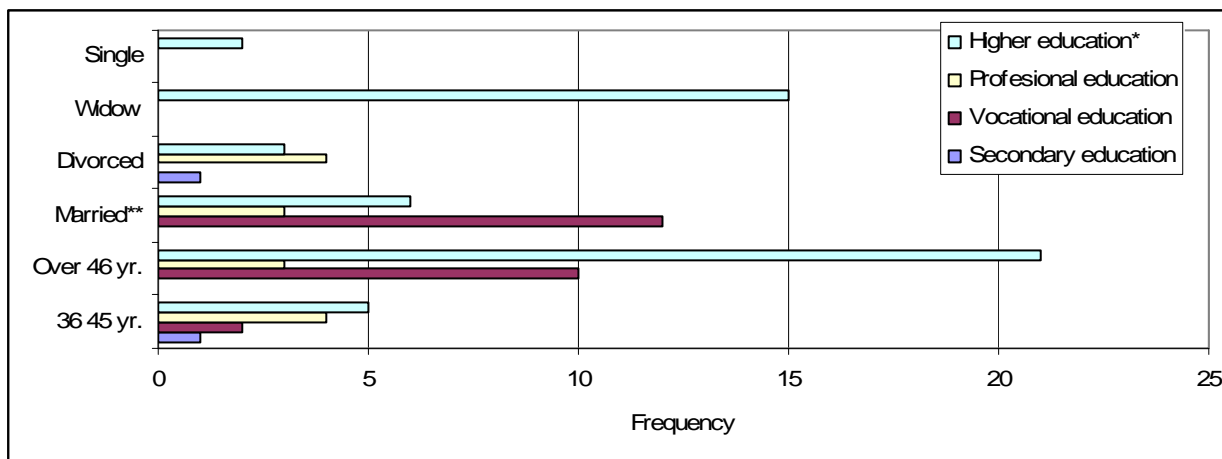


Fig. 1. Demographic characteristics of MS women

In the most cases we faced with widow women over 46 years and having higher education. It's not typical, talking about all general set, but it is typical, that educated women are more active and motivated in any kind of social participation. So, this pilot analysis mostly concerns women with higher education. Talking about marital status of women, we could do premise, that it could be connected with developing of communication skills. Analyzing demographic data, we realized that only 22 of all women live in family.

Other part of women belongs to the groups of widow (12), divorced and single (6). It means that nearest environment of women with MS did not support development of communication skills. Assessing women according level of education we set up that most of them has higher education and a few of them has secondary education. We could do premise, that women who are educated and have deeper experience in keeping and facilitating interrelations, might have more motivation for cognitive activities, interpersonal contacts and social participation.

Level of Communication Skills of MS women

Before planning art based education session in order to optimize communication skills of women with MS, we revealed their own perception of communication level in general. As mention above, own communication skills women assessed in work activity and personal interrelations.

Table Nr.1. Self assessment of communication skills

Indicators According Age	Agree		Disagree		Uncertain	
	36-45 yr.	>46 yr.	36-45 yr.	>46 yr.	36-45 yr.	>46 yr.
Self-feeling	2	21	9	6	1	7
Viability	3	20	1	7	8	7
Enterprise	12	16	-	13	-	5
Openness with other people	10	17	1	14	1	3

Age is one of objective attributes that could influence effectiveness of communication skills of persons with MS, because age is directly connected with social experience that forms communicative behavior. Significant differences in the results of self assessment in communication skills were not set up (Table 1). Group of MS women over 46 years of age demonstrated more self confidence in getting acquainted with strangers, viability, sharing their success with others. On the one hand, we could do premise that duration of disease is not an essential factor for communication skills quality and women their obtained social experience demonstrates even in later periods of disease and acquired habits that lets keep level of communication in rather high level. But on the other hand this fact could be explained as sign of disease

progress, when due to affected cortex, cognitive and critical thinking are impaired and women demonstrated lack of adequate self evaluation.

Preference of art based education in improvement of communication skills

Workings in art based activities patients with MS developed self-confidence, social and emotional growth. They perceived themselves as capable for creation that is personally meaningful and publicly acknowledged. Before starting art based education sessions it was offered to choose those kind of educational activities that could be most interesting and personally involving for them.

Table Nr. 2. Preferable self realization in art based education

Type of art based education	Age		Occupation		Education			
	36-45 yr.	>46 yr.	Working*	Out-of-work	Secondary	Special	Higher	University*
Decoupage	2	17*	16	3		3		16
Education through music	5	6	1	10	1	3	6	1
Education through movement	5	8	2	11		6	1	6
Theatre	-	2	-	2				2
Uncertain	-	1	1	-				1

*Note – level of significance $p < 0.05$

Analyzing research data, we realized that significant preferences for self-realization are decoupage as an activity of self-realization (Table Nr.2). Group of women over the age of 46 years, prefer decoupage most of all and in the age group from 36 - 45 years this kind of activity is the less desirable. Being younger they indicate education through movement or education through moving as preferable more often. The same kinds of art based education might be chosen assessing results according the occupation. Education aspect in choosing the type of art based education show that women, whose level of education higher possibly have more information about art based education or art therapy in whole, so they indicated larger variety of things they could perform in organized sessions. It means that women with MS could perform some kind of self-realization in art based education and it is one of the ways to develop communication skills that could be applied for other groups of persons with health risk factors.

Table Nr. 3. Preferences and choice of art based education

Preferable kind of art education	Age		Occupation		Education			
	36-45 yr.	> 46 yr.	Yes	No	Secondary	Special	Higher	University
Decoupage	2	6	5	3	-	3	-	5
Education through music	-	10	10	-	-	-	-	10
Education through movement	3	3	1	5	-	2	3	1
Theatre	7	14	5	16	1	7	4	9
Uncertain	-	1	-	1	-	-	-	1

Talking about kind of art education that could be realized in the social rehabilitation process it was set up that there is some differences to witch must be paid attention, because women indicated a few types of preferable art activities (Table Nr. 3). Differences are seen in research data analysis according age, occupation and education. Group of women who are over 46 years of age shows controversial results. It's obvious that lack of self-confidence is typical for this age women. In reflection on possible self-realization of person mostly all of the participants of this group pointed decoupage. But in reality they

prefer to participate in sessions of education through movement. It can be connected with knowing characteristics of disease or just looking for something inexperienced. Women can assess progress in loose of motor skills and moving therapy is one of ways that could stabilize progress of motor impairments. According women's occupation ideas about personal participant in art education field differs. Those who are in labor marked relations prefer decoupage, and those who are out of work - education through movement. These results points (table 3), that during day, women got to be tired and decoupage education is rather quite but at the same time highly motivated, because women could do a lot of things for their everyday life needs at the same giving a great positive emotional input. For those who are out of job - moving activity is a way to increase social contacts, to get more physical activity and to manage progress of disease.

Preferences in choosing kind of art based education has important place. In the most cases women with university education indicated decoupage as preferable activity in the first place and education through movement in second place. It could be explained as point of some critical thinking, adequate viewpoint on self abilities. Women with special education indicated a more difference in preferences of art based education, but no statistically significant marks were set.

It was realized that the most popular is decoupage art and education through movement talking about art based education as kind of development of communication skills in general. Education through music and theatre were mentioned as well, but rate of choosing them was low. May be these kinds of art based education are rather known and demanding some gifts in specific area of art.

Evaluation of changes in the MS Communication Skills

Trying to set any art education tendencies in women with MS it was necessary to reveal their perception of communication level in general. As mention above, changes of communication skills as enterprise, openness with other people, viability, and personal interrelations were assessed.

Table 4. Changes in communication skills applying art based education according age

Indicators	Agree		Disagree		Uncertain	
	36-45	>46	36-45	>46	36-45	>46
Age						
Self-feeling	4	22	7*	6	2	6
Viability	3*	19	1	7	7*	7
Enterprise	10	16	2	14	1	6
Openness with other people	10	17	1	11	1	3

*Note: * – level of significance $p < 0.05$*

Age is one of objective attributes that could influence effectiveness of communication skills of people with MS, because age is directly connected with social experience that forms communicative behavior. Significant results were set up assessing women's attitude on their own abilities in communication (Table Nr. 4). Group of MS women over 46 years of age demonstrated more self confidence in getting acquainted with strangers, sharing their success with others. On the one hand, we could do premise that duration of disease is not an essential factor for communication skills quality and women their obtained social experience demonstrates even in later periods of disease and acquired habits that lets keep level of communication in rather high level. But on the other hand this fact could be explained as sign of disease progress, when due to affected cortex, cognitive and critical thinking are impaired and women demonstrated lack of adequate self evaluation.

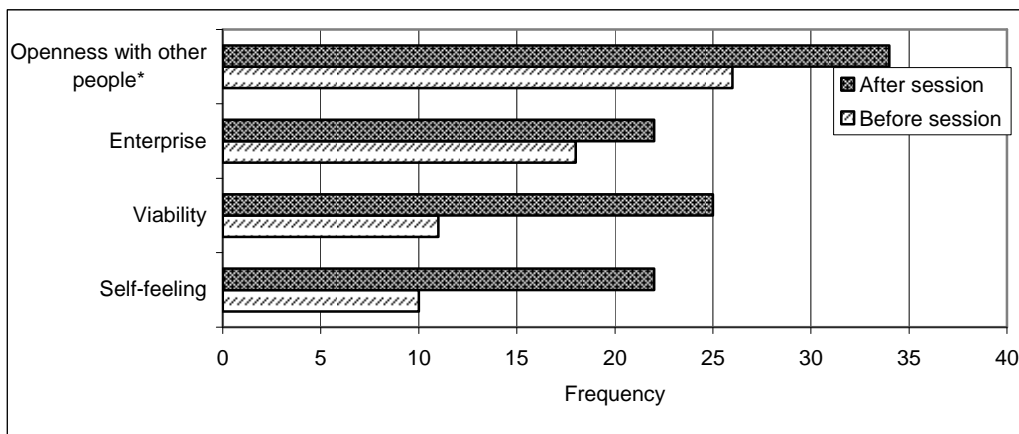


Fig. 2. Changes in communication skills applying education through movement
*Note: * – level of significance $p < 0.05$*

Analyzing the influence of art based education on the changes of communication skills before and after sessions it's obvious, that positive effect in this sphere was set up (Fig. 2, 3). Significant statistical differences were set up in changes according exact type of art based education and in results of pre and post educational activities. Those women who prefer education through movement assess their communication skills as more linked to changes: mostly in the getting more energy in various activities. Extensive differences after attendance in the sessions of education through movement were set up in the sphere of self-feeling, enterprise and viability. Statistically significant changes ($p < 0.05$) in comparison with other indicators of communication skills were set up in openness with other people. It means that contacts and common motor activity activated positive changes in the psychological status, so they get more self confidence that plays as some kind of challenge for social participation.

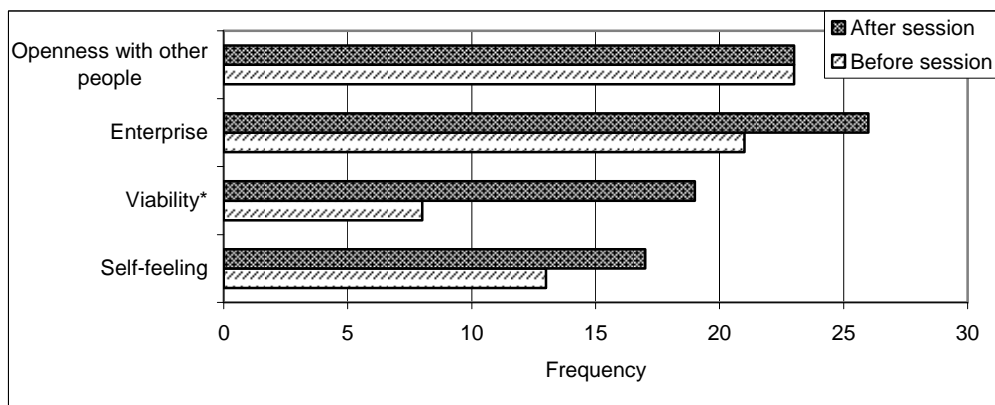


Fig. 3. Changes in communication skills applying decoupage
*Note: * – level of significance $p < 0.05$*

Changes in the quality of communication skills applying decoupage were set up as well. The most significant alteration ($p < 0.05$) was observed in changes of viability. Decoupage is popular among women with MS. Changes in enterprise, self-feeling are not so obvious; in this case we can talk about positive tendencies. No changes were fixed assessing results of openness with other people. It could happen because of the peculiarity of decoupage process: individual work, with a less interrelations with others, self involvement in the activity determines quite stable educational activity. Sense of self realization, possibility to implement own creative ideas it was a motivation for women to attend sessions. As the lack of energy is one of the most common features of MS disease, that's why decoupage was preferable as quite, non exhausting activity. It means that decoupage could be used as a mean of management of disease symptoms and fatigue especially.

Generalizing the results of the research it could be mentioned facts that were not directly foreseen in our research but they are obvious in the results. It was revealed that relationship between the arts and learning has maintained a commitment to enrich internal resources (arts specialists, teachers who have

ongoing learning opportunities in the arts, others). The group of women with MS became as community that recognized in (and by) creating partnerships, increasing their activities in communication and self-confident. Partnerships has emphasized specific role of each individual that participate in the sessions of art education. Improving communication skills of MS women at the same time knew knowledge was gained.

Conclusions

1. The main reasons that excludes (or partly excludes) MS persons from usual social activities, that gives him self-satisfaction, creates state of despair and feeling of loneliness, defines communication disorders in interacting with environment.

2. Age is directly connected with social experience that forms communicative behavior and it could influence effectiveness of communication skills of people with MS. Group of women over 46 years of age demonstrated more self confidence in getting acquainted with strangers, sharing their success with others. In this case we do premise that duration of disease is not an essential factor for communication skills quality.

3. Unemployed women show much more energy in commutation sphere. It could be explained as influence to specific environment in which they act. It helps not only to maintain communication skills, but to develop them, as well. So, communication skills could be maintaining better in unemployment women, because they can shape their activity by their own self-feeling. Education level of people with MS has influence on their communication skills.

4. Differences are seen in research data analysis according age, occupation and education. Group of women who are over 46 years of age shows controversial results. It's obvious that lack of self-confidence is typical for this age women. In reflection on possible self-realization of person mostly all of the participants of this group pointed painting therapy. Those who are in labor marked relations prefer decoupage, and those who are out of work - moving therapy.

5. Talking about art based education as kind of development of communication skills in general was realized that the most popular is decoupage art and moving therapy. Painting and music therapies were mentioned as well, but rate of choosing them was low. May be these kinds of art based education are rather known and demanding some gifts in specific art area.

6. In spite of that, that significance changes were not found out, the results could be analyzed and assessed as premise for more detail analysis in the future. Lack of energy is one of the most common features of MS disease. It means that art based education could be used as a mean of management of disease symptoms.

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NEUROLOGINIŲ SUSIRGIMŲ TURINČIŲ ASMENŲ UGDYMAS MENU KAIP KOMUNIKACIJOS ĮGŪDŽIŲ PLĖTOTĖS PRIEMONĖ

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Santrauka

Meninis ugdymas gali būti naudojamas tobulinant išsėtine skleroze sergančių asmenų bendravimo įgūdžius. Taikant ugdymo menu veiklas, įrodyta, kad asmeninė motyvacija skatinanti bendravimo įgūdžius, aktyvina dalyvio įtrauką socialiniam dalyvavimui. Komunikacijos problemos, kylančios išsėtine skleroze sergantiems asmenims, gali būti vertinamos iš somatinės ar neurologinės pusės, tačiau žvelgiant iš socialinės paradigmos – komunikacijos įgūdžiai pirmiausia siejami su efektyviu asmens socialiniu įgalinimu ir socialine integracija, ir mokymosi visą gyvenimą paradigma. Tyrimu atskleista, jog ugdymo menu veiklos teigiamai veikia bendravimo kiekybines bei kokybines charakteristikas.

RAKTINIAI ŽODŽIAI: bendravimas, ugdymas menu, išsėtine skleroze.