Pedagogical Contexts 2020, No. 1(14)
www.kontekstypedagogiczne.pl
ISSN 2300-6471
pp. 181–197
https://doi.org/10.19265/kp.2020.1.14.252

ORIGINAL PAPER
Received: 2.01.2020
Accepted: 24.02.2020

Justyna Żulewska
https://orcid.org/0000-0001-5017-3418
The Maria Grzegorzewska University in Warsaw
jzulewska@aps.edu.pl

Agata Mężyk
https://orcid.org/0000-0003-3091-413X
The Maria Grzegorzewska University in Warsaw
amezyk@aps.edu.pl

Assessment of Communication Quality by People with Broca's Aphasia

Ocena jakości komunikacji przez osoby z afazją Broki

Keywords: communication, quality of communication, aphasia, Broca's aphasia, andragogy

Summary: Language is a means of transferring information, and the ability to communicate has a fundamental meaning to every human being. Loss of the ability or deterioration of communication in people with Broca's aphasia affects their psychosocial functioning. The aim of this research was to obtain information on the subjective evaluation of the quality of communication of people with this type of aphasia. A group of 22 patients with Broca's aphasia caused by ischemic stroke was included in the study. A diagnostic survey method was used, along with own study questionnaire research tool (Communication Quality Assessment Questionnaire). Socio-demographic data of the patients was recorded. The results of the study showed that almost all patients with Broca's aphasia negatively assess their own communication capabilities and also feel they are negatively perceived by their surroundings because

of their communication difficulties. Dissatisfaction with the quality of the communication prevents the subjects from maintaining satisfactory contacts with other people.

Słowa kluczowe: komunikacja, jakość komunikacji, afazja, afazja Broki, andragogika specjalna

Streszczenie: Język jest środkiem służącym do przekazywania informacji, a możliwość porozumiewania się ma podstawowe znaczenie dla każdego człowieka. Utrata tej możliwości lub zaburzenia porozumiewania się osób z afazją Broki wywierają wpływ na ich funkcjonowanie psychospołeczne. Celem przeprowadzonego badania było uzyskanie informacji na temat subiektywnej oceny jakości komunikacji osób z tym typem afazji. Badaniem objęto grupę 22 pacjentów z afazją Broki po udarze niedokrwiennym mózgu. Posłużono się metodą sondażu diagnostycznego, a narzędziem badawczym był kwestionariusz własnego opracowania – Kwestionariusz oceny jakości komunikacji. Udokumentowano dane społeczno-demograficzne pacjentów. Wyniki badania pokazały, że niemal wszyscy chorzy z afazją Broki dokonali negatywnej oceny swoich możliwości komunikacyjnych, a także czuli się negatywnie oceniani przez otoczenie z powodu trudności w porozumiewaniu się. Niezadowolenie z jakości komunikacji uniemożliwia badanym utrzymywanie satysfakcjonujących kontaktów z innymi ludźmi.

Introduction

Contemporary civilizational development brings about many problems and global threats such as civilization diseases, including neurological ones. The topics covered in the following article fall within the field of andragogy – special and rehabilitation andragogy in particular – which deals with problems of adults with disabilities. As Jerzy Stochmiałek writes, one of the most important issues in meeting the needs of such people is communication with others; their functional integration is further fostered by proper self-esteem, adopting the right attitude towards their own disability, intensification of social contacts, as well as education of able-bodied people in tolerance toward what is different (Stochmiałek, 1996).

Verbal communication is one of the basic human skills. It usually takes place through direct contact, with the use of the colloquial version of the spoken

language. Speaking, understanding, reading and writing seem inherent in the everyday social behavior of a modern human being. As Jolanta Panasiuk writes:

> Knowledge of natural language and its use in situations of verbal and written communication is a skill of fundamental importance for every human being. Speech, as an inherent feature of the human species, conditions its social, cognitive and emotional functioning. Speech disorders must therefore affect all forms of human activity and overall interactive behaviors which are an expression of the way humans exist in the world. (Panasiuk, 2013, p. 547)

The quality of an individual's communication is based on their ability to express themselves and their needs, to provide information about the world and about themselves, and to make contact with other members of the community. Importantly, it is also a subjective value that depends on one's communication habits, needs, and personality traits. For this reason, determining the quality of one's communication requires an analysis of a person's subjective assessment in this regard. A person who experiences communication disorders can describe their current situation and compare it with the state they would like to achieve. It should be noted that the individual perception of the quality of communication can indirectly affect a person's opinion on how they are seen and assessed by the environment. Guylaine Le Dorze and colleagues emphasize that communication difficulties (e.g., in people with aphasia) may be misinterpreted by those around them. For example, problems with participating in a group conversation may be seen as reluctance to socialize. Comments on fatigue can be seen as a sign of boredom. There is also a risk that the environment will equate communication problems in people with aphasia with low intelligence (Le Dorze, Brassard, Larfeuil & Allaire, 1996). The fear of such negative assessment may lead to the patient's withdrawal from interpersonal contacts or may be associated with the experience of negative emotions during conversation.

In the literature on the subject, there are many theoretical stands on aphasia, hence the diversity of definitions and classifications of the disorder. According to Mariusz Maruszewski, aphasia is "partial or complete disruption of mechanisms that program speech functions in a person who has already mastered these activities caused by organic damage to relevant brain structures" (Maruszewski, 1966, p. 98). The injury is located in the area of vascularization of the middle cerebral artery on the left, because in most people, both right-handed and left-handed, the brain structures that regulate language activities

are located there. The main causative agent of aphasia is stroke (estimated to be the cause of more than half of aphasia cases); others include craniocerebral injuries and brain tumors. The clinical picture of the patients is not uniform; depending on the location and extent of brain damage, it involves, to varying degrees, both the utterance and/or understanding of language statements. Disorders comorbid with aphasia are agraphia, alexia and acalculia (i.e., disorders of writing, reading and performing mathematical tasks). Patients may also have emotional and cognitive disorders.

Broca's aphasia occurs as a result of damage to the frontal-lateral left hemisphere, forward from the Roland furrow. It affects, among others, Broca's area (the so-called speech motor center) and the white matter (*substantia alba*) deep inside. In patients with this type of aphasia, all forms of linguistic expression are disturbed, i.e., repetition, naming, as well as narrative and dialogue statements. Patients speak slowly, with effort; the length of the phrase is clearly limited. Phonemes in words are distorted, replaced, added or dropped. Perseverations, i.e., pathological, inertial repetition of words appear. Statements are agramatic, and some patients use so-called telegraphic speech. In deep states of motor aphasia, verbal expression is blocked or limited to uttering meaningless language remains. The understanding of verbal utterances, however, is largely maintained.

All in all, as the description above makes clear, the repertoire of language means is very limited in people with Broca's aphasia. This causes difficulties in establishing verbal interactions and realizing one's communication intentions and, in consequence, may lead to social isolation and loss of social roles. According to Maruszewski, a patient with aphasia, due to communication impairment and movement disorders, is an "invalid" because their body's efficiency has been permanently or enduringly compromised. This has an adverse effect on their social, professional, economic and social situation, as many patients run away from difficulties and even abstain from any attempts to communicate with other people. This, in turn, leads to a sense of strong dependence on the environment and can cause mood swings, growing depression and anxiety, as well as raises the fear of failure in dealing with other people (Maruszewski, 1974).

Danuta Kądzielawa also describes the above-mentioned changes in emotional processes in people with aphasia, additionally drawing attention to the fact that patients with motor aphasia often exhibit excessive criticism of their shortcomings and thus withdraw from verbal contact with the environment

(Kądzielawa, 1978). According to Maria Pąchalska, communication disorders lead to serious impairment in human psychosocial functioning, which is why aphasia can be seen as a language communication disorder that may contribute to low self-esteem, loss of self, depression and a sense of otherness and alienation (Pąchalska, 1999). Aphasiologists, psychologists and speech therapists also agree that the loss or serious deterioration of communication skills cause a change in the attitude other people have toward the patient. Oftentimes, patients with aphasia are treated like children, which disturbs family relationships. Relatives feel lost when dealing with their patient family members because they cannot read their needs correctly. Sometimes – which is also confirmed by the authors' experience in working with patients with aphasia – the families of these people do not acknowledge the changes and have unrealistically high expectations for therapy and for the possibility of communicating with their loved ones. The failure to meet these expectations is an additional source of frustration for people with aphasia. Sometimes the attitude of the environment is unfriendly and excessively critical, which makes the subjects feel redundant, lonely and rejected. This is a huge burden which contributes to their withdrawal from interpersonal contacts. Panasiuk points out, however, that communication disorders are not always directly proportional to language disorders, because people with limited language means are, in fact, able to adopt some compensatory communication strategies, and their communication intentions can still be conveyed through the use of non-verbal means which are equivalent to words (Panasiuk, 2013). Pąchalska also indicates that in assessing the communication efficiency of a patient with aphasia, it is necessary to take into account not only the existing disorders, but also the ways of compensating for them, as well as the person's social attitude and pragmatic skills. The same condition may, therefore, be different for two different people and, despite the fact that they suffer from the same disorder, their level of functional communication may differ (Pąchalska, 1999).

In the following sections of this article, and in the light of their own research, the authors aim to present an assessment of the quality of interpersonal communication in people experiencing the effects of Broca's aphasia and draw attention to the socially significant problem of people affected by the phenomenon analyzed.

Methodology of own research

This pilot research serves to verify the research problem and check the usefulness of the questions contained in the questionnaire created for this purpose. The main goal of the study was to learn and discuss the assessment of the quality of communication by people with post-stroke Broca's aphasia.

The following research questions were asked:

1. How do subjects with Broca's aphasia assess the quality of their communication with other people?
2. How, in their opinion, does the environment assess their difficulties in interpersonal communication?

Methods, techniques and research tools

The method of diagnostic survey was used in the work (the survey was the research technique), and the research tool was the questionnaire we created (Communication Quality Assessment Questionnaire, Table 1). The Likert scale was used to measure the subjects' attitudes towards the difficulties they experience in interpersonal communication. One of its variants was chosen, i.e., a 4-element scale without a neutral point (the so-called forced selection scale). This version of the scale requires that the person completing the questionnaire make a decision regarding their attitude towards the statement, without the option to remain neutral. While developing the Communication Quality Assessment Questionnaire, a 5-point Likert scale was considered, but initial patient studies showed a clear tendency to give one of four non-neutral responses, and to omit the "I have no opinion" option. In addition, the 5-point range of the scale, due to language and cognitive impairment of the subjects with post-stroke aphasia, negatively affected the proper perception of individual response variants. The questionnaire consisted of 12 statements. The answers were marked on a 4-point scale, in which 1 meant "I fully agree" and 4 meant "I fully disagree." Seven statements had negative connotations (e.g., "I get nervous when I cannot say something," "I am afraid of speaking"), and five had positive ones (e.g., "I want to communicate," "People are interested in what I have to say"). The aim was to avoid the risk of lowering the patients' mood by having them confirm only negative statements and, by analogy, negate the positive ones. In regard to the research questions posed, the statements were divided into two groups:

I. Regarding how the subjects with aphasia assess the quality of their communication (statements 1, 2, 5, 6, 8, 11);
II. Regarding how the subjects with aphasia feel assessed by their surroundings because of their communication difficulties (statements 3, 4, 7, 9, 10, 12).

Negative wording was calculated in inversion (i.e., by inverting the scale). The higher the overall result obtained in the study, the worse the communication quality rating. The results of the questionnaire ranged from 12 (when the respondent assessed the quality of their communication as very good) to 48 (when the respondent assessed the quality of their communication as very poor). Suggested interpretation of the results:

– results in the range of 12–20 indicate a very good assessment of the quality of communication,
– results in the range of 21–29 show a good assessment of the quality of communication,
– results in the range of 30–38 indicate a poor assessment of the quality of communication,
– results in the range of 39–48 indicate a very poor assessment of the quality of communication.

In order to answer the research questions, calculations were made using the MS Excel package. With its help, basic descriptive statistics were analyzed. Arithmetic means, median and percentage fractions were used to describe the variables.

Table 1
Communication Quality Assessment Questionnaire

Statement	I fully agree	I quite agree	I quite disagree	I fully disagree
1. I want to communicate with others.	1	2	3	4
2. I am afraid of speaking.	1	2	3	4
3. People understand what I say.	1	2	3	4
4. People avoid talking to me.	1	2	3	4
5. I maintain social contacts.	1	2	3	4
6. I am able to communicate my needs.	1	2	3	4
7. People are interested in what I have to say.	1	2	3	4
8. I get nervous when I cannot say something.	1	2	3	4

Statement	I fully agree	I quite agree	I quite disagree	I fully disagree
9. People I talk to correct my statements and suggest the right words	1	2	3	4
10. My interlocutors are impatient with having to spend more time talking to me.	1	2	3	4
11. I avoid communicating.	1	2	3	4
12. People think I am less intelligent because of my communication difficulties.	1	2	3	4

Source: own research.

Organization and conduct of research

The research was carried between May and November 2019. It was held at the home of each respondent in the form of individual meetings during which the subjects completed the Communication Quality Assessment Questionnaire. Individual statements were read out by the researchers and the respondents indicated or read their selected response. During the meetings, efforts were made to create an atmosphere of kindness and understanding, and the subjects were given sufficient time to feel that they did not have to hurry with their answers. Each examined person was assured of discretion and informed that the obtained information would only be used for research purposes.

Characteristics of the studied group

Twenty-two subjects with post-ischemic-stroke Broca's aphasia were examined who met the following inclusion criteria: (a) the first ischemic stroke located in the left hemisphere; (b) no chronic disease other than stroke risk factors; (c) no psychiatric history; (d) no major depression; (e) language skills enabling participation in the study. The subjects qualified to the study group obtained a total of over 100 points from the four subtests of the auditory understanding assessment part in the Boston Diagnostic Aphasia Examination (Goodglass & Kaplan, 1983; experimental version, in the Polish adaptation by Hanna Ulatowska, Maria Sadowska and Danuta Kądzielawa), and correctly read simple sentences (quiet reading). The diagnosis of the type of their aphasia

was based on a speech therapy examination using the Boston Diagnostic Aphasia Examination. All subjects who participated in the study had spoken Polish since birth and declared right-handedness. Each of the patients agreed to participate in the study, and their health status enabled them to complete the questionnaire. The patients were examined at least one year after the onset of the stroke; the time that lapsed since then was not longer than two years for all the subjects.

Based on the patient's interview, information was collected on age, sex, place of residence, education, professional status, marital status, and children. The age of the examined individuals ranged from 42 to 78 years of age with an average age of 65.8. As the age analysis evidences, the largest group of respondents were people between the ages of 70 and 79 (40%), and the least numerous patients were those between 40 and 49 years old (9%); 27% of the subjects fell between the ages of 60–69, and 23% between 50 and 59. Sixteen men (73%) and six women (27%) participated in the study. The most numerous group were people with secondary education (41%); 32% had higher education, 18% had basic vocational education, and 9% had primary education. Of the survey participants, 91% were city dwellers, while the remaining 9% came from a rural environment. The main source of income for the respondents was retirement pension (59%) or disability pension (32%). Only 9% of respondents continued to work. Over half of the respondents were married (77%); the majority had children (96%). Detailed information on the subjects covered by the survey is provided in Table 2.

Table 2
Characteristics of the Surveyed Individuals

FEATURE	CATEGORY	n	%
Gender	women	6	27
	men	16	73
Age	40–49	2	9
	50–59	5	23
	60–69	6	27
	70–79	9	40
Origin	city	20	91
	countryside	2	9

FEATURE	CATEGORY	n	%
Marital status	single	1	4
	married	17	78
	widowed	3	14
	divorced	1	4
Children	yes	21	96
	no	1	4
Education	primary	2	9
	vocational	4	18
	secondary	9	41
	university	7	32
Professional situation	working	2	9
	Pensioner (retirement pension)	13	59
	Pensioner (disability pension)	7	32

Source: own research.

Own research results

The overall score of the Communication Quality Assessment Questionnaire was calculated for each study participant (Table 3). In the examined group, the average value for the result of the global questionnaire was 33. The median value was 32.5, which means that half of the respondents obtained a result above 32.5 points, and half of the subjects obtained a result below 32.5 points.

Considering the proposed interpretation of the results according to the designated four point ranges, it can be stated that 19 people (86% of the subjects) rated the quality of their communication as poor, and 1 person (5% of respondents) – very poor. The results of 2 people (9% of the respondents) indicated a positive assessment of the quality of communication, but none of the respondents assessed it as very good (Figure 1).

Table 3
Overall results of the Communication Quality Assessment Questionnaire

Subjects	Overall result	Subjects	Overall result
Subject 1.	34	Subject 12.	33
Subject 2.	35	Subject 13.	36
Subject 3.	26	Subject 14.	30
Subject 4.	32	Subject 15.	35
Subject 5.	35	Subject 16.	32
Subject 6.	32	Subject 17.	32
Subject 7.	38	Subject 18.	27
Subject 8.	32	Subject 19.	35
Subject 9.	33	Subject 20.	32
Subject 10.	31	Subject 21.	39
Subject 11.	30	Subject 22.	35
Average		33	
Median		32.5	

Source: own research.

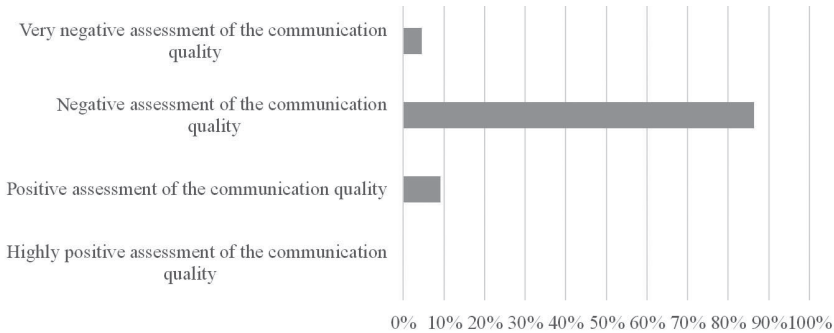

Figure 1.
Percentage distribution of communication quality assessments of the surveyed people.
Source: own research.

All the subjects (100% of the respondents) fully or quite agreed with the following statements: "I get nervous when I cannot say something," "My interlocutors are impatient with having to spend more time talking to me," "The people I talk to correct my statements and suggest the right words," and "People think I am less intelligent because of my communication difficulties." This suggests that every patient with Broca's aphasia experiences negative emotions associated with the limitations of the language repertoire in communication with the environment and, at the same time, feels negatively assessed by the interlocutor because of these difficulties. The vast majority of patients (77% of respondents) confirmed that they felt anxious about speaking. The same number of respondents (50% each) answered "I quite agree" and "I quite disagree" to the statement "I avoid communication," while as many as 72% of the subjects thought that people avoid talking with them. Over half of the respondents (59%) did not maintain social contacts from before the illness. A similar number (59%) said that other people are not interested in what they had to say. Less than half of the respondents (40%) "quite agreed" with the declaration that people understand their statements. It should also be noted that all of the people participating in the study "quite agreed" with the statement "I want to communicate," with as many as 20 of them (91% of respondents) fully agreeing with it. Most patients (68% of respondents) assessed that they were able to inform their surroundings about their needs.

The overall results for individual statements are presented in Figure 2. The sum of points obtained ranged from 22 (if all the patients received 1 point for the given answer) to 88 points (if all the patients received 4 points for the given answer). The more points for a given statement, the worse the overall rating of the respondents in the studied area; the fewer points, the better the rating.

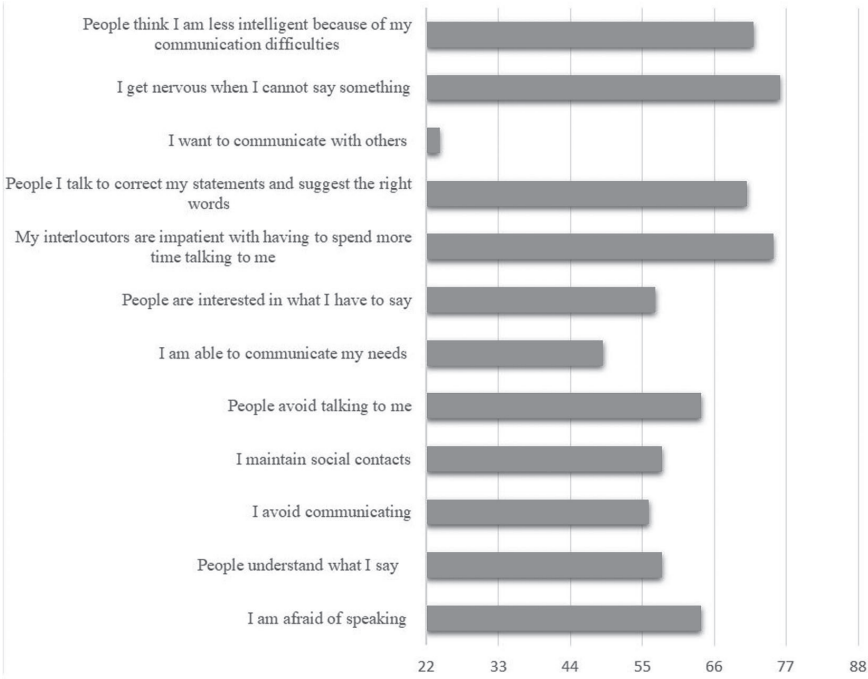

Figure 2.
General results of the surveyed persons for individual statements.
Source: own research.

The results obtained by the patients for statements from both groups (Table 5) indicate that the majority of the respondents misjudged the quality of their communication and felt negatively assessed by their surroundings due to their communication difficulties. It was noticed that the average result of the total of respondents was worse in the case of the group of statements about how the subjects with Broca's aphasia feel assessed by the environment because of their difficulties in interpersonal communication. Of course, the assessment of the respondents was subjective and does not necessarily reflect how they are actually perceived by the environment.

Table 5
Results obtained by the test persons for statements from both groups

Types of statements	Average result of all respondents
Statements related to how subjects with Broca's aphasia assess the quality of their communication with other people	55
Statements related to how their difficulties in interpersonal communication are assessed by others.	66

Source: own research.

Discussion

Communication behaviors are an inseparable feature of human social behaviors. They condition one's existence in a social group and the ability to express oneself and one's needs. There is a clear information gap in Polish literature regarding the assessment of the quality of communication by people with aphasia. The studies that have been carried out so far have focused on assessing the quality of life after a stroke, with communication being only one of the aspects assessed in them. The results of the research conducted by Krystyna Jaracz and Wojciech Kozubski (2001), for instance, showed that the quality of life of the patients examined, when compared to the group of healthy people, was significantly lower, and the most important differences concerned communication, maintaining body hygiene and running a household.

A few foreign studies (Pallavi, Perumal & Krupa, 2018; Vuković, 2018) have confirmed that quality of life is closely related to communication difficulties. Research conducted by Mile Vuković (2018) showed that these difficulties negatively affect patients' overall well-being, social functions, social contacts and related activities, as well as reduce self-esteem. People with aphasia obtained lower results than the control group in the Quality of Communication Life (QoCL) questionnaire in all areas related to communication. The research shows that the quality of life of patients with Broca's aphasia is unsatisfactory. Similar results of research conducted using the above-mentioned questionnaire were achieved by Pallavi and colleagues (2018). According to the authors, patients with Broca's aphasia rated the quality of their lives as worse than healthy people's in all areas where communication with the environment is important. They obtained the lowest results in the field of activities related to social life. It can be concluded that due to communication disorders and physical disabilities, these

people had limited social contacts, and that aphasia negatively affected their ability to maintain family and social relationships. People with Broca's aphasia also made a negative self-assessment, which indicates that their communication difficulties indirectly affect their level of self-confidence and reduce self-esteem.

The obtained results are consistent with the observations made by the authors of this article, who conducted a study on the quality of communication using their own questionnaire in 22 patients with Broca's aphasia. Based on the conducted research, it was found that **almost all patients with this type of aphasia assess the quality of their communication poorly and feel negatively assessed by the environment due to their communication difficulties**. Patients with Broca's aphasia are aware of their disorders and express frustration when their communication is ineffective. Communication difficulties affect social contacts, clearly limiting them. Aphasic interlocutors feel negatively assessed by their surroundings. They think other people equate their communication limitations with low intelligence. This can indirectly lessen their self-esteem. Despite this, all respondents feel the need to communicate with their surroundings, which is consistent with Panasiuk's statement that "the desire to contact other members of a given community, to provide the environment with information about oneself and about the world, is, after all, an inherent feature of a human being. This desire to exist in a social environment and to express oneself goes hand in hand with the need to see the environment's response. In this view, verbal behavior is treated as an element of global human social behavior" (Panasiuk, 2013, p. 176).

Summing up these considerations, it can be seen that all the subjects with Broca's aphasia share common communication problems, negatively affecting their self-esteem and the ability to maintain satisfactory contact with other people. Information on how people with Broca's aphasia feel perceived by their surroundings shows how important it is to disseminate knowledge about aphasia and the communication problems related to it in our society. This knowledge can prevent negative reactions to communication difficulties as well as the stigmatization and social isolation of people with aphasia. Collecting information on the assessment of the patient's own communication capabilities is important because it helps to program the process of individual improvement of the patient. Practicing the skills of independent attempts to communicate in everyday, natural situations can lead to an improvement in the quality of life of people with Broca's aphasia, and thus support their rehabilitation and social reintegration.

References

Goodglass, H. & Kaplan, E. (1983). *Boston Diagnostic Aphasia Examination (BDAE).* Philadelphia: Lea and Febiger.

Jaracz, K. & Kozubski, W. (2001). Jakość życia po udarze mózgu. Część I – badanie prospektywne [Quality of life after stroke. Part I – Prospective Study]. *Udar Mózgu*, *3*(2), 55–62.

Kaczmarek, B.L.J. (1995). *Mózgowa organizacja mowy* [*The Cortical Organization of Speech*]. Lublin: Agencja Wydawniczo-Handlowa AD.

Kądzielawa, D. (1978). Ogólne zasady postępowania rehabilitacyjnego [General Principles of Rehabilitation]. In: M.T. Nowakowska (ed.), *Rehabilitacja chorych z afazją* [*Rehabilitation of Patients with Aphasia*] (pp. 8–17). Wrocław: Zakład Narodowy im. Ossolińskich. Wydawnictwo Polskiej Akademii Nauk.

Kurcz, I. (2005). *Psychologia języka i komunikacji* [*Psychology of Language and Communication*]. Warszawa: Wydawnictwo Naukowe Scholar.

Le Dorze, G., Brassard, C., Larfeuil, C. & Allaire, J. (1996). Auditory Comprehension Problems in Aphasia from the Perspective of Aphasic Persons and their Families and Friends. *Disability & Rehabilitation*, *18*(11), 550–558.

Maruszewski, M. (1966). *Afazja. Zagadnienia teorii i terapii* [*Aphasia. Questions of Theory and Therapy*]. Warszawa: PWN.

Maruszewski, M. (1974). *Chory z afazją i jego usprawnianie* [*Patient with Aphasia and their Improvement*]. Warszawa: Wydawnictwo Nasza Księgarnia.

Nęcki, Z. (2000). *Komunikacja międzyludzka* [*Interpersonal Communication*]. Kraków–Kluczbork: Wydawnictwo Antykwa.

Pallavi, J., Perumal, R.C. & Krupa, M. (2018). *Quality of Communication Life in Individuals with Broca's Aphasia and Normal Individuals: A Comparative Study*, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6238575/ [accessed: 20.11.2019].

Panasiuk, J. (2013). *Afazja a interakcja* [*Aphasia and Interaction*]. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.

Parr, S. (2001). "Psychosocial Aspects of Aphasia: Whose Perspectives?" *Folia Phoniatrica et Logopaedica*, *53*(5), 266–288.

Pąchalska, M. (1999). *Afazjologia* [*Aphasiology*]. Warszawa–Kraków: Wydawnictwo Naukowe PWN.

Seniów, J. (2007). Poudarowa afazja i inne ogniskowe zespoły poznawcze [Post-stroke aphasia and other focal cognitive syndromes]. In: A. Szczudlik, A. Członkowska, H. Kwieciński & A. Słowik (eds.), *Udar mózgu* [*Stroke*] (pp. 212–219). Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.

Stochmiałek, J. (1996). Andragogika specjalna – zarys tematyki [Special Andragogy – outline of the Thematics]. *Szkoła Specjalna*, *4*, 195–201.

Turska, W. & Skowron, A. (2009). Metodyka oceny jakości życia [Methodology for Assessing the Quality of Life]. *Farmacja Polska*, *8*(65), 572–580.

Vuković, M. (2018). *Communication related quality of life in patients with different types of aphasia following a stroke: preliminary insights*, https://clinmedjournals.org/articles/iacod/international-archives-of-communication-disorder-iacod-1-004.php?jid=iacod [accessed: 20.11.2019].

Wujek, T. (ed.). (1996). *Wprowadzenie do andragogiki* [*Introduction to Andragogy*]. Radom: Wydawnictwo Instytutu Technologii Eksploatacji.