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UTICAJ TIPA STIMULUSA NA ZADOVOLJSTVO LOGOPEDSKIM TRETMANOM OSOBA SA AFAZIJOM

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Apstrakt

S obzirom na to da afazija često ostavlja dugoročne posledice na jezičkom i komunikativnom planu, njenom tretmanu posvećuje se velika pažnja. Pored izbora odgovarajuće metode, za efikasnost terapije neophodna su i adekvatna terapijska sredstva. Imajući to u vidu, cilj ovog rada je da se utvrdi uticaj vrste terapijskog materijala na zadovoljstvo logopedskim tretmanom kod osoba sa afazijom. Uzorak je činilo 10 ispitanika sa afazijom koji su se nalazili na rehabilitacionom tretmanu na Klinici za rehabilitaciju „Dr Miroslav Zotović“ 2022. godine. U tretmanu je korišćena Metoda remedijacije, usmerena na poboljšanje sposobnosti imenovanja. Kao terapijski materijal korišćeno je 20 kartica sa objektima u boji i 20 kartica na kojima su objekti prikazani crno-belim crtežima. Za ovo istraživanje oblikovana je skala kojom su ispitanici ocenjivali zadovoljstvo logopedskim tretmanom ocenama od 1 do 5. Rezultati su pokazali da su svi ispitanici izrazili veće zadovoljstvo kada im se objekti prikazuju u boji nego u vidu crno-belih crteža. Ovaj nalaz sugeriše na mogući uticaj vrste terapijskog materijala na zadovoljstvo tretmanom kod osoba sa afazijom.

Ključne reči: afazija, logopedski tretman, zadovoljstvo tretmanom

Abstract

Considering that aphasia often leaves long-term consequences on the language and communicative level, great attention is paid to the treatment of aphasia. In addition to choosing the appropriate method, it is necessary to choose the most effective therapeutic means. Having that in mind, the aim of this study is to determine the influence of the type of therapeutic material on the satisfaction with speech therapy treatment of persons with aphasia. The sample consisted of 10 subjects with aphasia who were undergoing rehabilitation treatment at the "Dr. Miroslav Zotović" Rehabilitation Clinic in 2022. The method of remediation aimed at improving the ability to name was used in the treatment. 20 cards with objects in color and 20 cards with objects depicted in black and white drawings were used as therapeutic material. For this research, a scale was designed in which respondents rated satisfaction with speech therapy treatment, with grades from 1 to 5. The results showed that all respondents expressed greater satisfaction when objects were presented to them in color than in the form of black and white drawings. This finding suggests a possible influence of the type of therapeutic material on treatment satisfaction in persons with aphasia.

Keywords: *aphasia, speech therapy treatment, satisfaction with treatment*

UVOD

Afazija podrazumeva gubitak ili poremećaj sposobnosti produkcije, upotrebe i razumevanja jezika. To je multimodalni poremećaj kojim mogu biti obuhvaćeni svi jezički modaliteti: auditivno razumevanje, govorenje, čitanje, pisanje, gestovni govor i jezičko mišljenje. Pored jezika, u afaziji mogu biti oštećene i druge kognitivne funkcije, kao što su pamćenje, pažnja i mišljenje (Vuković, 2019a). Afazija često ostavlja dugoročne posledice na jezičkom i komunikativnom planu. Usled toga mnoge osobe sa afazijom imaju znatno narušen kvalitet života (Vuković et al., 2022; Vuković et al., 2018)

S obzirom na težinu poremećaja i posledice afazije, tretmanu osoba sa afazijom posvećuje se velika pažnja. Pregled literature pokazuje da su u prošlosti korišćeni različiti metodi i pristupi u tretmanu afazija (Vuković, 2019b). Pozitivni efekti terapije afazija dobro su dokumentovani (Vuković, 2019b). Međutim, još uvek se postavlja pitanje uticaja pojedinih varijabli na ishod tretmana (Doogan, 2018). Pokazano je da se poboljšanje govornih, jezičkih i komunikativnih sposobnosti postiže kontrolisanjem niza varijabli. Kliničar, odnosno logoped-afaziolog određuje važnost varijabli za svakog pacijenta ponaosob. U skladu s tim on formira program tretmana na osnovu više parametara, kao što su: tip terapijskog zadatka, modalitet stimulusa, modalitet odgovora, broj ajtema u vidnom polju, brzina i način

prezentovanja stimulusa, broj pokušaja i tip podrške (Vuković, 2019b). U fokusu ove studije je istraživanje uticaja modaliteta stimulusa na poboljšanje sposobnosti imenovanja kod pacijenata sa afazijom. Opredelili smo se za vizuelne i grafičke stimuluse.

Tokom tretmana afazija koriste se različiti vizuelni i grafički stimulusi. U dizajniranju ovih stimulusa kliničari se oslanjaju na iskustvo i intuiciju (Brown & Thiessen, 2018). Ovi stimulusi obično se koriste za tretman poremećaja imenovanja. Tokom tretmana od pacijenta se uglavnom traži da imenuje vizuelno prikazane predmete, bića i pojave (Vuković, 2019b).

S obzirom na to da se imenovanje često koristi kao terapijski zadatak, često se postavlja pitanje koja vrsta stimulusa je najefikasnija (fotografije u boji ili crno-beli crteži), da li postoje razlike u ispravnosti i latenci odgovora na osnovu tipa terapijskog stimulusa. Shodno tome, nameće se pitanje da li boja, veličina ili tekstura mogu da utiču na sposobnost imenovanja kod pacijenata sa afazijom (Reymnod et al., 2022).

U literaturi se dosta raspravlja o upotrebi crno-belih crteža i fotografija u boji u terapijske svrhe (Reymnod et al., 2022). Grafičkim crtežima vrši se prikaz objekata, osoba ili scena viđenih u stvarnom svetu. Kao takvi, crteži nude mogućnost fokusiranja na osnovne karakteristike objekta ili scene, čime se naglašava značenje slike, a izostavljaju nepotrebni detalji. Prema nekim podacima grafički crteži olakšavaju razumevanje prikazanih pojmova kako kod zdravih subjekata, tako i kod osoba sa afazijom. Smatra se da jednostavna konstrukcija slike više doprinosi razumevanju prikazanog objekta nego umetničke ili suviše detaljne slike (Reymnod et al., 2022). S druge strane, fotografije u boji prikazuju objekte ili osobe na sličan način kako ih doživljavamo u svakodnevnom životu. Stoga se pretpostavlja da fotografije u boji mogu da imaju veći doprinos u razumevanju prikazanih objekata, a time i evociranju njegovog naziva (Reymnod et al, 2022).

CILJ

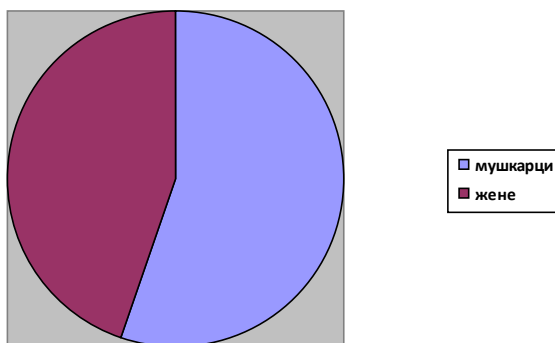
Cilj ovog rada je utvrđivanje uticaja tipa stimulusa na zadovoljstvo logopedskim tretmanom kod osoba sa afazijom.

METODOLOGIJA

UZORAK

Uzorak je činilo 10 ispitanika sa afazijom vaskularne etiologije koji su se nalazili na rehabilitacionom tretmanu na Klinici za rehabilitaciju „Dr Miroslav Zotović“ u julu 2022. godine. U uzorak su uključeni ispitanici sa sledećim tipovima afazija: Brokina (5), Vernikeova (2), anomička (1) i konduktivna (1).

Starost ispitanika kretala se od 50 do 85 godina (prosečna starost 67,30, SD=11,206). U uzorak su uključeni ispitanici sa različitim nivoom obrazovanja. Pet ispitanika je imalo završenu srednju školu, četiri osnovnu, a jedan ispitanik je bio sa fakultetskim obrazovanjem. Prosečno vreme od nastanka afazije iznosilo je 7.70 meseci (SD=1.494, MIN=5, MAX=10).



Grafikon 1. Prikaz raspodele ispitanika prema polu

Na grafikonu 1. može se videti da više od polovine ispitanika, tačnije 60% njih, čine muškarci, dok su 40% ispitanika činile žene.

Instrumenti

U tretmanu je korišćena Metoda remedijacije usmerena na poboljšanje imenovanja. Terapijski materijal sastojao se od 20 kartica sa objektima u boji i 20 kartica na kojima su objekti prikazani crno-belim crtežima. Ocena zadovoljstva tretmanom procenjena je skalom koja je posebno dizajnirana za ovo istraživanje. Ispitanici su imali zadatak da ocenom od 1 do 5 označe zadovoljstvo tretmanom na sledeći način: 1 - u potpunosti sam nezadovoljan/na, 2 - delimično sam nezadovoljan/na, 3 - niti sam zadovoljan/na, niti nezadovoljan/na, 4 delimično sam zadovoljan/na, 5 - u potpunosti sam zadovoljan/na.

Procedura

Istraživanje je izvršeno u dve faze. U prvoj fazi terapije korišćene su crno-bele kartice. Nakon njihove primene od ispitanika je traženo da oceni zadovoljstvo tretmanom na osnovu primenjenih terapijskih stimulusa. U drugoj fazi terapije pacijentu su prikazane kartice u boji. Nakon terapijskog postupka sa karticama u boji od ispitanika je takođe zatraženo

da oceni zadovoljstvo tretmanom. Posle toga pristupilo se obradi dobijenih podataka.

REZULTATI ISTRAŽIVANJA

Tabela 1. *Ocene ispitanika na skali*

Ispitanici (inicijali)	Crno-bele kartice	Kartice u boji
	Zadovoljstvo tretmanom	
NN	3	5
PK	2	4
SDŽ	4	5
AK	3	5
SA	3	5
MP	2	5
PL	1	4
TG	3	5
MT	3	4
ZA	2	5
Aritmetička sredina	2,6	4,7
df.	1	1
Sig.	,673	,312

Rezultati pokazuju da su ispitanici izrazili značajno veće zadovoljstvo tretmanom kada su se kao terapijski materijal koristile kartice u boji, u poređenju sa karticama na kojima su objekti prikazani crno-belim crtežima. Statističkom metodom ANOVA nisu utvrđene statistički značajne razlike u ocenama na skali u odnosu na pol ispitanika.

DISKUSIJA

Cilj ovog rada je bio da se utvrdi uticaj vrste terapijskog materijala na zadovoljstvo logopedskim tretmanom kod osoba sa afazijom.

Kao što pokazuju podaci iz literature, većina stimulusa za procenu jezičkih sposobnosti kod osoba sa afazijom bazirana je na crno-belim crtežima. Međutim, novija istraživanja su pokazala da fotografije u boji imaju tendenciju da podstiču lakšu i bržu produkciju reči na zadacima imenovanja, kako kod zdravih ispitanika, tako i kod osoba sa afazijom (Mazumdar et al. 2020). Nedavno sprovedeno istraživanje u kome je učestvovalo 10 zdravih i 5 afazičnih osoba imalo je za cilj da utvrdi da li fotografije u boji dovode do bržeg prepoznavanja stimulusa. Ispitanicima je prezentovano 40 crno-belih i kolor fotografija. Rezultati ove studije pokazali su da nema značajne razlike u prepoznavanju ove dve grupe stimulusa. Napominjemo, međutim, da su kao varijable u ovom istraživanju uzimane

fiksacija oka na stimulusu, što nije od posebnog značaja za rehabilitaciju govora i jezika (Michelle Zenz, 2015). Interesantno je, međutim, da i u najnovijoj studiji nije utvrđen uticaj stimulusa na sposobnost imenovanja, to jest da su ispitanici podjednako tačno imenovali fotografije u boji i crno-bele crteže (Reymond et al, 2022). S druge strane, u jednoj ranijoj studiji u kojoj je ispitivan uticaj obojenih i crno-belih fotografija objekata na kašnjenje i ispravnost imenovanja, pokazano je da su osobe sa afazijom, kao i zdravi ispitanici, brže imenovali objekte prikazane u boji nego na crno-belim crtežima (Mohr, 2010, prema Reymnod et al., 2022).

Rezultati našeg istraživanja pokazuju da pacijenti sa afazijom ispoljavaju veći stepen zadovoljstva kada se u tretmanu koriste fotografije u boji. Iako u ovoj studiji nisu ispitivani brzina i tačnost odgovora na prikazanim stimulusima, naši nalazi sugerišu na mogući uticaj materijala na ishod tretmana anomalije kod osoba sa afazijom, što može biti izazov za buduća istraživanja.

ZAKLJUČAK

Na osnovu analize i diskusije dobijenih rezultata može se zaključiti da vrsta terapijskog materijala utiče na zadovoljstvo logopedskim tretmanom kod osoba sa afazijom.

Ograničenje studije: s obzirom na to da je u istraživanje uključen mali broj ispitanika, dobijeni podaci se ne mogu generalizovati. Stoga u budućim istraživanjima na ovu temu treba uključiti veći broj pacijenata sa afazijom, kao i veći broj terapijskih varijabli.

INTRODUCTION

Aphasia means the loss or impairment of the ability to produce, use and understand language. It is a multimodal disorder that can involve all language modalities: auditory comprehension, speaking, reading, writing, gestural speech and linguistic thinking. In addition to language, other cognitive functions such as memory, attention and thinking can be damaged in aphasia (Vuković, 2019a). Aphasia often leaves long-term consequences on language and communication. As a result, many people with aphasia have a significantly impaired quality of life (Vuković et al., 2022; Vuković et al., 2018).

Considering the severity of the disorder and the consequences of aphasia, great attention is paid to the treatment of people with aphasia. A review of the literature shows that various methods and approaches have been used in the past in the treatment of aphasia (Vuković, 2019b). The

positive effects of aphasia therapy are well documented (Vuković, 2019b). However, the question of the influence of certain variables on the outcome of treatment is still being asked (Doogan, 2018). It has been shown that the improvement of speech, language and communication skills is achieved by controlling a number of variables. The clinician, that is, the speech therapist-aphasiologist determines the importance of the variables for each patient, individually. Accordingly, he forms a treatment program based on several parameters, such as: type of therapeutic task, stimulus modality, response modality, number of items in the visual field, speed and method of presentation of stimuli, number of attempts and type of support (Vuković, 2019b) . The focus of this study is the investigation of the influence of stimulus modality on the improvement of naming ability in patients with aphasia. We choose visual and graphic stimuli.

During the treatment of aphasia, various visual and graphic stimuli are used. In designing these stimuli, clinicians rely on experience and intuition (Brown & Thiessen, 2018). These stimuli are commonly used to treat naming disorders. During the treatment, the patient is generally asked to name visually displayed objects, beings and phenomena (Vuković, 2019b).

Given that naming is often used as a therapeutic task, it is often questioned which type of stimulus is most effective (color photographs or black and white drawings), whether there are differences in response accuracy and latency based on the type of therapeutic stimulus. Consequently, the question arises as to whether color, size or texture can influence naming ability in patients with aphasia (Reymnod et al., 2022).

There is a lot of discussion in the literature about the use of black and white drawings and color photographs for therapeutic purposes (Reymnod et al., 2022). Graphic drawings are used to depict objects, people or scenes seen in the real world. As such, drawings offer the ability to focus on the essential features of an object or scene, thus emphasizing the meaning of the image while omitting unnecessary details. According to some data, graphic drawings facilitate the understanding of the presented concepts both in healthy subjects and in persons with aphasia. A simple image construction is considered to contribute more to the understanding of the depicted object than an artistic image or an overly detailed image (Reymnod et al., 2022). On the other hand, color photos show objects or people in a similar way as we experience them in our everyday life. Therefore, it is assumed that color photos can have a greater contribution in understanding the displayed objects, and thus in evoking the name of that object (Reymnod et al, 2022).

THE AIM

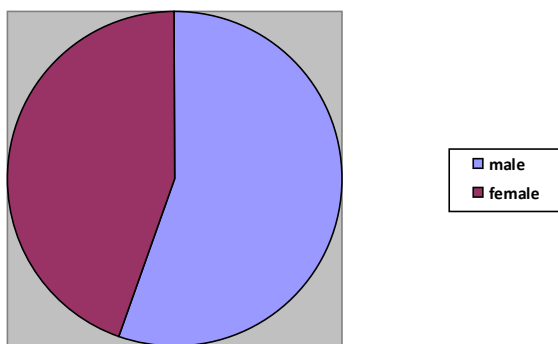
The aim of this paper is to determine the influence of the type of stimulus on the satisfaction with speech therapy treatment in persons with aphasia.

METHODOLOGY

A SAMPLE

The sample consisted of 10 subjects with aphasia of vascular etiology who were undergoing rehabilitation treatment at the “Dr. Miroslav Zotović” Rehabilitation Clinic in July 2022. year. The sample included respondents with the following types of aphasia: Broca’s (5), Wernicke’s (2), anomic (1) and conductive (1).

The age of the respondents ranged from 50 to 85 (average age 67.30 SD=11.206). Respondents with different levels of education were included in the sample. Five respondents had completed secondary school, four had completed elementary school, and one respondent had a university level of education. The average time since the onset of aphasia was 7.70 months (SD=1.494 MIN=5 MAX=10).



Graph 1. *Presentation of the distribution of respondents by gender*

On graph 1, we can see that more than half of the respondents, more precisely 60% of them are men, while 40% of the respondents are women.

INSTRUMENTS

The method of remediation aimed at improving naming was used in the treatment. The therapy material consisted of 20 cards with objects in color and 20 cards with objects shown in black and white drawings. The rating of satisfaction with the treatment was assessed by a Scale that was

specially designed for this research. Respondents had the task of marking their satisfaction with the treatment on a scale from 1 to 5 as follows: 1 - I am completely dissatisfied, 2 - I am partially dissatisfied, 3 - I am neither satisfied nor dissatisfied, 4 I am partially satisfied, 5 - I am completely satisfied.

PROCEDURE

The research was carried out in two phases. In the first phase of therapy, black and white cards were used. After their application, the respondents were asked to rate their satisfaction with the treatment based on the applied therapeutic stimuli. In the second phase of therapy, the patient is shown color cards. After the therapeutic procedure with colored cards, the subjects were also asked to rate their satisfaction with the treatment. After that, we started processing the obtained data.

RESEARCH RESULTS

Table 1. Scores of respondents on the scale

respondents (initials)	Black and white cards	Colored cards
	Satisfaction with the treatment	
NN	3	5
PK	2	4
SDž	4	5
AK	3	5
SA	3	5
MP	2	5
PL	1	4
TG	3	5
MT	3	4
ZA	2	5
Arithmetic mean	2,6	4,7
df.	1	1
Sig.	,673	,312

The results show that the respondents expressed a significantly higher satisfaction with the treatment when color cards were used as therapy material, compared to cards on which objects were depicted with black and white drawings. The ANOVA statistical method did not reveal any statistically significant differences in the scores on the scale in relation to the gender of the respondents.

DISCUSSION

The aim of this work was to determine the influence of the type of therapeutic material on the satisfaction with speech therapy treatment in persons with aphasia.

As data from the literature show, most of the stimuli for assessing language abilities in persons with aphasia are based on black and white drawings. However, recent research has shown that color photographs tend to induce easier and faster word production on naming tasks, both in healthy subjects and in people with aphasia (Mazumdar et al. 2020). A recent study involving 10 healthy and 5 aphasic individuals aimed to determine whether color photographs lead to faster recognition of stimuli. Respondents were presented with 40 black-and-white and color photographs. The results of this study showed that there is no significant difference in the recognition of these two groups of stimuli. We note, however, that eye fixation on the stimulus was taken as a variable in this research, which is not of particular importance for speech and language rehabilitation (Michelle Zenz, 2015). It is interesting, however, that in the most recent study found no effect of stimulus on naming ability, that is, subjects named color photographs and black-and-white drawings equally accurately (Reymond et al, 2022). On the other hand, in an earlier study that examined the effect of color and black-and-white photographs of objects on naming latency and accuracy, it was shown that people with aphasia, as well as healthy subjects, named objects shown in color more quickly than in black-and-white drawings. (Mohr, 2010, according to Reymnod et al., 2022).

The results of our research show that patients with aphasia show a higher degree of satisfaction when color photos are used in the treatment. Although this study did not examine the speed and accuracy of responses to the displayed stimuli, our findings suggest a possible influence of the material on the outcome of anomia treatment in persons with aphasia, which may be a challenge for future research.

CONCLUSION

Based on the analysis and discussion of the obtained results, it can be concluded that the type of therapeutic material influences the satisfaction with speech therapy treatment in persons with aphasia.

Limitation of the study. Since the research included a small number of respondents, the obtained data cannot be generalized. Therefore, in future research on this topic, a larger number of patients with aphasia should be included, as well as a larger number of therapeutic variables.

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Prilog – Attachment

Kartice u boji – Color cards









Crno-bele kartice – Black and white cards

