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Obilježja govornih pauza u autobiografskom narativu i opisu slike kod osoba sa shizofrenijom: pilot-studija

/ Characteristics of Speech Pauses in Autobiographical Narratives and Picture Descriptions Among People With Schizophrenia: A Pilot Study

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Uvod: Govorne pauze odražavaju različite procese uključene u planiranje i organizaciju govorne produkcije te su kod osoba sa shizofrenijom povezane s formalnim poremećajem mišljenja i negativnim simptomima bolesti. Budući da različiti govorni zadaci aktiviraju različite kognitivne procese i mogu rezultirati različitim obrascima pauziranja, cilj je ove pilot-studije bio usporediti obilježja pauza tijekom autobiografskog narativa i opisa slike kod osoba sa shizofrenijom. Metode: Ukupno 11 pacijenata sa shizofrenijom intervjuirano je primjenom protokola DISCOURSE (autobiografski narativ i opis slika). Govorni uzorci ručno su ano-

Introduction: Speech pauses reflect various processes involved in planning and organizing speech production and, in people with schizophrenia, are associated with formal thought disorder and negative symptoms. Since different speech tasks activate different cognitive processes and may result in different pausing patterns, the aim of this pilot study was to compare pause characteristics during an autobiographical narrative and a picture description task in individuals with schizophrenia. Methods: A total of 11 patients with schizophrenia were interviewed using the DISCOURSE protocol (autobiographical narrative and picture description). Speech samples were manually annotated, and temporal characteristics

tirani, a vremenska obilježja bezvučnih pauza analizirana su u programu Praat. Bezvučnom pauzom definiran je interval tišine u trajanju od najmanje 250 ms i najviše 3 sekunde, s razinom zvuka ispod –25 dB. Izračunati su broj pauza, ukupno trajanje pauza, prosječno trajanje pauze i medijan trajanja pauze, trajanje najdulje pauze, broj pauza po minuti govora te udio vremena provedenog u pauzama. Razlike između autobiografskog narativa i opisa slike procijenjene su Wilcoxonovim testom za uparene uzorke. Rezultati: Tijekom autobiografskog narativa zabilježen je značajno veći broj pauza nego tijekom opisa slike (p = 0,010), međutim broj pauza po minuti govora nije se statistički značajno razlikovao između zadataka (p = 0,450). Nasuprot tome, tijekom opisa slike prosječno trajanje pauza (p = 0,014) i medijan trajanja pauza (p = 0,011) bili su značajno veći. Nisu utvrđene statistički značajne razlike u ukupnom trajanju pauza (p = 0,120), udjelu vremena provedenog u pauzama (p = 0,689) i trajanju najdulje pauze (p = 0,221). Zaključak: Različiti govorni zadaci kod osoba sa shizofrenijom rezultiraju različitim obrascima pauziranja. Prosječno trajanje bezvučnih pauza bilo je značajno dulje tijekom opisa slike nego tijekom autobiografskog narativa, što može upućivati na različite zahtjeve planiranja govora i organizacije diskursa između zadataka, iako su za potvrdu takvog tumačenja potrebna istraživanja koja uključuju neuropsihološke mjere. Iako je riječ o pilot-istraživanju s malim brojem ispitanika, nalazi upućuju na važnost uključivanja različitih govornih zadataka pri razvoju i standardizaciji govornih biomarkera u shizofreniji te njihovu potencijalnu kliničku primjenu.

of silent pauses were analyzed in Praat. A silent pause was defined as an interval of silence lasting at least 250 ms and at most 3 seconds, with a sound level below –25 dB. The following were calculated: number of pauses, total pause duration, mean pause duration and median pause duration, duration of the longest pause, number of pauses per minute of speech, and proportion of time spent in pauses. Differences between the autobiographical narrative and picture description were assessed using the Wilcoxon signed-rank test for paired samples. Results: A significantly higher number of pauses was recorded during the autobiographical narrative than during the picture description (p = 0.010); however, the number of pauses per minute of speech did not differ significantly between the tasks (p = 0.450). In contrast, during the picture description, the mean pause duration (p = 0.014) and the median pause duration (p = 0.011) were significantly longer. No statistically significant differences were found in total pause duration (p = 0.120), proportion of time spent in pauses (p = 0.689), or duration of the longest pause (p = 0.221). Conclusion: Different speech tasks in individuals with schizophrenia result in different pausing patterns. The mean duration of silent pauses was significantly longer during the picture description than during the autobiographical narrative, which may indicate different demands on speech planning and discourse organization between the tasks, although studies including neuropsychological measures are needed to confirm this interpretation. Although this is a pilot study with a small number of participants, the findings point to the importance of including different speech tasks in the development and standardization of speech biomarkers in schizophrenia and their potential clinical application.