

existing theories and/or concepts. Interviews were completed following the original abstract deadline, and data analysed thereafter.

Results: Thirteen adults who experienced epilepsy during childhood in Ireland were interviewed. Three primary themes and 14 subthemes were generated from the data. The primary themes were that of (1) disenfranchised grief, (2) the need to belong and (3) meeting the child where they're at. Adults reflected that, as children, the diagnosis of epilepsy evoked feelings typically associated with bereavement or loss. Although adults described childhood epilepsy as isolating, these feelings were countered by the support of friends, family and others with epilepsy, as participants recalled finding their tribe. Participants also called for developmentally appropriate practice when dealing with children and their families, across clinical and educational settings, in order to facilitate more comprehensive understandings of epilepsy and its consequences.

Conclusions: Retrospective qualitative research offers a unique opportunity to explore changes in perception those with childhood epilepsy over time. The present study highlights the need for developmentally appropriate practice, which takes the child's neuropsychological and developmental standing into consideration, when supporting for young people with epilepsy. Given the dearth of research in this field, further retrospective research is needed to fully comprehend the impact of epilepsy in childhood globally.

Categories: Epilepsy/Seizures

Keyword 1: inclusion

Keyword 2: adolescence

Keyword 3: epilepsy / seizure disorders

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38 Language and memory outcome after frontal or temporal resection for epilepsy

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Objective: The purpose of this investigation was to examine neuropsychological functioning after frontal (FL) or temporal lobectomy (ATL) in patients with localization related epilepsy. Few studies have compared cognitive changes following FL and ATL. Past research found improvement on measures of verbal and visual memory along with confrontation naming after FL (Busch et al., 2017). In contrast, a number of studies have reported verbal memory and naming decline in those undergoing left ATL. The current study examined post-operative cognitive changes in epilepsy patients who underwent either a left or right FL or ATL.

Participants and Methods: Subjects include 430 patients (204 men, 225 women, 1 gender not specified), who underwent surgical resection; Right FL = 25, Left FL = 26, Right ATL = 211, Left ATL = 168. Patients had a mean FSIQ = 90, ages ranging from 18 to 71 (mean age = 37 years), right (n=359), left (n=50), or mixed (n=18) handedness, and education ranging from 3 to 22 years (mean = 12.9 years of education). Change from pre- to post FL and ATL was examined in the following domains: learning and memory [Long Term Storage for Selective Reminding Tests (SRT), Wechsler's Memory Scale (WMS): Logical Memory Delayed Recall (LM) and Visual Reproduction Delayed Recall (VR)], and language [Boston Naming Test (BNT)].

Results: A one-way ANOVA was used to examine changes in language and memory. Our findings revealed statistically significant differences between resection groups for LM, SRT, and BNT. There were significant declines ($p < .001$) for left ATL when compared to right ATL for LM, SRT, and BNT. There were significant declines for left ATL, when compared to the gains in both left ($p < .001$; $p = .002$) and right ($p = .018$; $p = .008$) FL for LM and BNT. Left ATL also had significant declines when compared to gains in SRT ($p < .001$) for right FL. There were significant declines for left FL when compared to right ATL for SRT ($p = .007$). Lastly, there were significant gains for right FL when compared to left FL for SRT ($p = .020$).

Conclusions: The pre- to post-surgical neuropsychological change in learning, memory, and language is understudied in frontal lobe epilepsy (FLE); although several investigators reported some learning and memory impairments in FLE at either pre- or post-surgical time points (Johnson-Markve et al., 2011; Incisa Della Rocchetta et al., 1993). The current study suggests that resections of the

frontal lobes are associated with better outcomes for naming and verbal memory (LM) when compared to left ATLs. Interestingly, verbal list learning declined more in left than right FL and right ATL patients suggesting a possible language based executive functioning component to this memory measure. As expected, our study further supports that left ATLs are associated with material specific memory declines. This pattern was not seen for those undergoing a right ATL (i.e., nonverbal memory did not decline in patients with right ATL).

Categories: Epilepsy/Seizures

Keyword 1: epilepsy / seizure disorders - surgical treatment

Keyword 2: frontal lobes

Keyword 3: temporal lobes

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39 Does Pseudoneglect Modifies The Visuospatial After-Effects Of Vertical Prism Adaptation?

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Objective: The prism adaptation (PA) with rightward shifting lenses is a promising rehabilitation technique for left hemispatial neglect. The PA has also been applied in healthy individuals to investigate cognitive mechanism(s) underlining such adaptation. Importantly, studies have suggested that PA may primarily impact the functions of the dorsal or the ventral attentional stream, and we have previously reported that PA to the upward and downward shifting lenses leads to a significant aftereffect in vertical line bisection task. However, this post-adaptation effect, similarly to that seen in the horizontal plane, might have been modified by the presence of the vertical pseudoneglect healthy participants often experience prior to PA. Thus, the aim of this study was to test this hypothesis.

Participants and Methods: 30 right-handed healthy adults (age M=22,4) performed a computerized line bisection (LB) in vertical and horizontal condition. The bisections were performed twice: before and after PA procedure. Participants took experimental procedure three times, each in at least 24 h of break, each time in one of three conditions of shifting lenses; down, up, control. Both LB tasks (vertical and horizontal) consisted of 24 lines, each centered on 23" touch screen. The participants were asked to find the middle of the line. Throughout the experiment, participants were comfortably seated with their head positioned on a chinrest. Participants were fitted with prismatic goggles that deviated their visual field by 10 degrees. For the adaptation we used the Peg-the-mole procedure consisting of 120 pointing movements.

Results: To assess the effect of the vertical PA on landmark judgments we performed a repeated measures ANOVA with direction of PA (upward/downward), the condition of LB (vertical/ horizontal) and pre- vs post adaptation as a between-subjects factor. This analysis revealed a main effect of the direction of PA ($p < 0.001$) and a main effect of condition ($p < 0.001$). Overall, however, only adaptation in up-shifting lenses led to significant aftereffects ($p < 0.05$). Further, when we excluded participants who did not exhibited horizontal pseudoneglect in preadaptation LB, the effect of PA in down-shifting PA emerged in vertical LB ($p < 0.05$). Further, this group also exhibited the aftereffect of PA in up-shifting lenses for the horizontal ($p < 0.01$) and the vertical LB ($p < 0.05$). Additionally, these participants exhibited a congruent tendency after upward and downward PA, and tended to allocate their attention more upward and rightward.

Conclusions: The results of this study confirm that the vertical PA evokes a visuo-spatial bias. Moreover, the PA aftereffect seems to be modified by the presence of the pre-adaptation pseudoneglect. Whereas the mechanism inducing this bias is not fully known, it might be explained in light of the interhemispheric activation-inhibition balance. Both the upward and downward PA may primarily lead to activation of the posterior regions of the right hemisphere, and this activation may result with the upward and rightward bias in the LB task. However, future research with neuroimaging techniques is needed to test this hypothesis.