Rhyme and rhythm modulation in dyslexia

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ABSTRACT

Although the response to “normal circumstances” in the process of auditory rhythm in dyslexia seen mostly in behavioral response but there are some in eye movements, EEG and under MRI. In the present study, first we have reviewed the literature search on “dyslexia” and TMS studies from SCOPUS and PUBMED, second we have used current flicker checkerboard studies to make a proposal experiment. Only one study have used consistently stimulus on dyslexia on 10 participants. Few test methods has been observed to play a critical role in how to identify problems (e.g. Desroches et al., 2006). In particular, the auditory rhythm in children is different in dyslexia, but its sensitivity is controlled with literacy in adults (Thomson et al., 2006) and received the individual variability to understand in dyslexia increases the chance of perception capacity as a musical key rhythm for phonological and reading acquisition (Boll-Avetisyan et al., 2020). In particular, the study of the temporal and frequency responses of the lateral geniculate nucleus (LGN) and its controller in the thalamic reticular nucleus (TRN), can determine if the temporal responses of these nuclei are normal in dyslexia. Even more, there are few studies pointing to TMS modulating thalamic responses in visual stimulus detection (Hurme et al., 2020).

METHODOLOGY AND RATIONALE

INTRODUCTION

TMS as therapy have been approved during last decade in UK and USA for some mental disorders such schizophrenia, but not for dyslexia. Indeed, there are not TMS as therapy have been approved during last decade in UK and USA for some mental disorders such schizophrenia, but not for dyslexia. Indeed, there are not TMS as therapy have been approved during last decade in UK and USA for some mental disorders such schizophrenia, but not for dyslexia. Indeed, there are not

Eligibility and Literature Search terms On SCOPUS and PUBMED:

(Dyslexia) OR *reading disorder** OR *writing disorder** OR *spelling disorder** OR *learning disorder** OR *reading disability** OR *spelling disability** OR *reading difficult** OR *writing difficult** OR *spelling difficult** OR *word blindness*) AND (TMS)

TMS was not used routinely with other techniques as shown in Table 1. This initial exploration found that Contanzo et al. (2013) used 10 Italian participants with dyslexia.

Table 1: Literature search results

<table>
<thead>
<tr>
<th>Dyslexia</th>
<th>TMS +</th>
<th>Authors</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>sMRI (T1)</td>
<td>Woolamet al.</td>
<td>2017</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>Ronconi et al</td>
<td>2014</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
<td>Costanzo et al</td>
<td>2013</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>Costanzo et al</td>
<td>2012</td>
</tr>
<tr>
<td>No</td>
<td>Eye movement</td>
<td>Vernet et al</td>
<td>2011</td>
</tr>
<tr>
<td>No</td>
<td>-</td>
<td>Laycock et al.</td>
<td>2009</td>
</tr>
<tr>
<td>No Review</td>
<td>-</td>
<td>Laycock &amp; Crether</td>
<td>2008</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>Cossett &amp; Monsu</td>
<td>1994</td>
</tr>
</tbody>
</table>

DISCUSSION AND CONCLUSIONS

Identify problems with eye tracker (n=8, Desroches et al., 2006).

Auditory rhythm in children is different in dyslexia, but its sensitivity is controlled with literacy in adults (n=19, Thomson et al., 2006).

Individual variability to understand in dyslexia increases the chance of perception capacity as a musical key rhythm for phonological and reading acquisition (n=23, Boll-Avetisyan et al., 2020).

In particular, the study of the temporal and frequency responses of the lateral geniculate nucleus (LGN) and its controller in the thalamic reticular nucleus (TRN) can determine if the temporal responses of these nuclei are normal in dyslexia. Even more, there are few studies pointing to TMS modulating thalamic responses in visual stimulus detection (Hurme et al., 2020).

REFERENCES


PCL improves non-word reading accuracy. Neuropsychologia, 50(11), 2645-2651.


