|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Studies | age | Groups | Task | Assessed construct (as mentioned in the study) | Group differences |
| Lorenzo J et al., 2013[1] | NF1 mean age=40.23 moNCs mean age=40.16 mo | NF1=43NCs=43 | The Delay Alternation task | Nonverbal WM | — |
| Casnar C L et al., 2017[2] | NF1 mean age=4.53 yNCs mean age=4.51 y | NF1=26NCs=37 | BRIEF-P | WM | NF1 < NCs |
| Chaix Y et al., 2018[3] | NF1 mean age=10 yNCs mean age=10 y | NF1=75NCs=75 | Corsi blocksWMI of the WISC-IVThe pseudoword repetition task | Spatial WM Forward spanSpatial WM Backward spanAuditory-verbal WMPhonological short-term WM | —NF1 < NCs—— |
| Payne J M et al., 2012[4] | NF1 mean age=11 yNCs mean age=10 y | NF1=49NCs=30 | CANTAB | Spatial WM | NF1 < NCs |
| Lehtonen A et al., 2015[5] | NF1 mean age=11y9 moNCs mean age=10y7 mo | NF1=49NCs=19 | Spatial WM taskBRIEF | Spatial WMWM | NF1 < NCs NF1 < NCs |
| Payne J M et al., 2011[6] | NF1 mean age=10.62 yNCs mean age=11.24 y | NF1=199NCs=55 | BRIEF | WM | NF1 < NCs |
| Hyman S L et al., 2005[7] | NF1 age range=8-16 yNCs age range=8-16 y | NF1=81NCs=49 | The Gap Matching task from BORBThe Line Orientation tasks from BORB | Visual-spatial WMVisual-spatial WM | NF1 < NCsNF1 < NCs |
|  |  |  | Digit Span Backward + Digit Span Forward minus Digit Span Backwards | Verbal WM | — |
| Champion J A et al., 2014[8] | NF1 age range=7-17 yNRV | NF1=46NRV | WMI of the WISC-IVSWM BSE of CANTABSWM strategy of CANTAB | WMSpatial WMSpatial WM | NF1 < NCsNF1 < NCs NF1 < NCs |
| Gilboa Y et al.2014[9] | NF1 mean age=12.3 yNCs mean age=12.4 y | NF1=29NCs=27 | BRIEF-P | WM | NF1 < NCs |
| Ullrich N J et al., 2010[10] | NF1 mean age=12.8 yNCs mean age=12.7 y | NF1=10NCs=6 | CANTAB | Spatial WM | NF1 < NCs |
| Huijbregts S et al., 2010[11] | NF1 age range=6.9–17.4 yNCs age range=6.0–17.3 y | NF1=30NCs=30 | The Memory Search 2D Objects (part 1)The Memory Search 2D Objects (part 2)The Visuo-Spatial Sequencing-task  | WMWMVisual-spatial WM + Visuo-temporal WM | —NF1 < NCs Both NF1 < NCs |
| Plasschaert E et al., 2016[12] | NF1 age range=8-18 yNCs age range=8-18 y | NF1=42NCs=52 | CANTABWNV-NL  | Spatial WMSpatial WM | NF1 < NCs NF1 < NCs |
| Rowbotham I et al., 2009[13] | NF1 age range=11.9–16.8 yNCs age range=12.2 –16.3 y | NF1=16NCs=16 | The Memory Search 2D Objects | WM | NF1 < NCs |
| Ferner R E et al., 1996[14] | NF1 age range=6-75 yNCs age range=6-75 y | NF1=103NCs=105 | The Sternberg Memory Task | WM | NF1 < NCs |
| Shilyansky C et al., 2010[15] | NF1 mean age=24.00 yNCs mean age=22.58 y | NF1=14NCs=12 | Two spatial delayed response tasks | Spatial WM | NF1 < NCs |
| Descheemaeker M J et al., 2013[16] | NF1 mean age=41.1 yNCs mean age=41.8 y | NF1=20NCs=20 | Auditory Verbal Learning Test (Dutch version)  | Auditory WM | NF1 < NCs |
| Costa Dde S et al., 2014[17] | NF1 mean age=65 yNCs mean age=70 y | NF1=5NCs=49 | Digit Span Backward + Digit Span Forward Corsi Span Backward + Corsi Span Forward | Verbal WMSpatial WM | NF1 < NCsNF1 < NCs |

**S1** Previous literature involving WM in NF1 patients

—: no group difference; NF1 performed poorer than NCs; BORB: the Birmingham Object Recognition Battery; BRIEF: Behavior Rating Inventory of Executive Function; BRIEF-P: Behavior Rating Inventory of Executive Function-Preschool; CANTAB: The Spatial Working Memory subtask of the Cambridge Neuropsychological Testing Automated Battery; NCs: normal controls; LNS: the University of Maryland Letter–Number Sequencing task; mo: months; NF1: patients with neurofibromatosis type 1; NRV: normative reference values; SCAP: Spatial Capacity Working Memory Task; SWM BSE: spatial working memory between search errors; SWM strategy: spatial working memory strategy score; WISC-IV: The Wechsler Intelligence Scale for Children–Fourth Edition; WMI: The Working Memory Index; WNV-NL: The Spatial Span subtest of the Wechsler nonverbal scale of ability (Dutch version)

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