

**Supplementary table 3: Modifiers of cognitive performance in NMOSD, MOGAD and MS**

Factor	Papers demonstrating impact on $\geq 1$ cognitive test in NMOSD	Papers demonstrating impact on $\geq 1$ cognitive test in MOGAD	Papers demonstrating impact on $\geq 1$ cognitive test in MS
Age at onset	Kong et al., 2022; Paolilo et al., 2020; Salama et al., 2020; Zhang et al., 2015	Deiva et al., 2020; Hachohen et al., 2018	Cacciaguerra et al., 2022; Fadda et al., 2021; Tan et al., 2018
Age at testing	Cacciaguerra et al., 2022; Hümmert et al., 2023; Kong et al., 2022; Liu et al., 2015; Saji et al., 2013; Vanotti et al., 2013; Yabalak et al., 2022; Zhang et al., 2015	Passoke et al., 2024	de Meo et al., 2021; Jakimovski et al., 2019; Ruano et al., 2017
Education	Cacciaguerra et al., 2022; Kim et al., 2016 (MSJ); Kim et al., 2017; Kong et al., 2022; Liu et al., 2015; Salama et al., 2020; Vanotti et al., 2013; Vlahovic et al., 2024; Yabalak et al., 2022; Zhang et al., 2015	Passoke et al., 2024;	Rimkus et al., 2018; Machado et al., 2021
EDSS	Blanc et al., 2008; Blanc et al., 2012; Cacciaguerra et al., 2022; Foolad et al., 2019; He et al., 2011 (Int J Neurosci); Hümmert et al., 2023; Kim et al., 2017; Kong et al., 2022; Lopes et al., 2025; Moore et al., 2016; Saji et al., 2013; Salama et al., 2020; Vlahovic et al., 2024; Yabalak et al., 2022	N/A	de Meo et al., 2021; Eijlers et al., 2018; Ruano et al., 2017; Saji et al., 2013
Depression	Cho et al., 2018; He et al., 2011 (Int J Neurosci); Hümmert et al., 2023; Kim et al., 2016 (MSJ); Kim et al., 2017; Lopes et al., 2025; Moore et al., 2016; Vanotti et al., 2013; Yabalak et al., 2022	Maniscalco et al., 2025;	Arnett et al., 2008; de Meo et al., 2021; Heesen et al., 2010
Anxiety	N/A	N/A	Vissicchio et al., 2019
Fatigue	He et al., 2011 (Int J Neurosci)	N/A	Englund et al., 2023; Guillemin et al., 2022; Heesen et al., 2010; Mattioli et al., 2011
Pain	Saji et al., 2013; Vlahovic et al., 2024	N/A	Brown et al., 2023
Brain lesions/ cortical encephalitis/ ADEM	Ashtari et al., 2024; Camera et al., 2021; Vanotti et al., 2013	Deiva et al., 2020; Hachohen et al., 2018; Kogel et al., 2024; Mittelman et al., 2024; Passoke et al., 2024	Masuda et al., 2017; Rimkus et al., 2018; Saji et al., 2013