cognitive issues. Karalyn's research has important consequences for our understanding of brain conditions that affect memory; for example, Alzheimer's disease and other forms of dementia. She has also revealed the impact of the same brain disorder on the speakers of two diverse languages, English and Japanese.

Semantic dementia (SD) is a neurodegenerative condition in the spectrum of frontotemporal dementia, and considered to be one of the main varieties of primary progressive aphasia. The question in the title of this talk will be addressed from two different perspectives. The first asks whether the *pattern* of language features observed in SD varies in any principled and significant way across different languages. English and Japanese, for example, differ in almost every component of language – phonology, syntax, written form, etc; yet the profiles of language deficit in SD patients from these two language communities are virtually identical. From this perspective, therefore, the answer is no, it does not matter which language you speak. The second question asks whether the *severity* of the language disorder in SD varies in a principled and significant way across the two languages spoken by bilingual cases of SD. A high proportion of people living in India speak two or more languages. When bilingual Indian SD patients are given the same tests in their L1 and L2 languages, of course they are impaired in both, but they show a striking advantage for L1. Furthermore, and of substantial theoretical interest, the patients' correct responses to test items in L2 are a virtually perfect subset of correct responses to the same test items in L1. From this perspective, therefore, the answer is yes, it does matter which language you are speaking. These contrasting answers to the two forms of the question follow from the following pair of hypotheses: (a) the language disorder in SD is a fairly pure reflection of a disintegrating semantic system, and (b) the semantic system is fundamentally language-independent.

REFERENCES

1. Fushimi, T, Komori, K, Ikeda, M, Lambon Ralph, MA & Patterson, K. (2009). The association between semantic dementia and surface dyslexia in Japanese. *Neuropsychologia*. 2009;47:1061–1068.
2. Patterson, K & Fushimi, T. Organisation of language in the brain: Does it matter which language you speak? *Interdisciplinary Science Reviews* 2006;31:201–216
3. Ratnavalli, E, Narayana, J & Patterson, K (2019). Differential deterioration of languages in bilingual patients with semantic dementia: Implications for language representation in bilinguals. Under review.

Members' Platform Presentations

15 MOTOR FUNCTIONAL NEUROLOGICAL DISORDER (MFND) IN A LARGE UK MENTAL HEALTH SERVICE: CLINICAL CHARACTERISTICS, MEDICATION PRESCRIPTION AND RESPONSE TO OUTPATIENT COGNITIVE BEHAVIOURAL THERAPY

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10.1136/jnnp-2019-BNPA.15

Objective Studies on motor functional neurological disorder (mFND) often originate in neurology settings and are characterised by low sample sizes, and lack control groups. There are few prescription guidelines and no gold standard

treatments. This study aims to establish mFND patients' socio-demographic and clinical characteristics, medication prescription patterns and patients' responses to outpatient cognitive behavioural therapy (CBT).

Methods This is a retrospective case-control study of mFND patients in contact with secondary mental health services in South London and Maudsley (SLaM) NHS Foundation Trust between 2006 and 2016. Data were obtained from anonymous electronic health records using the 'Clinical Records Interactive Search' (CRIS) database. Data were extracted on socio-demographic, clinical and medication variables. Control patients were a random sample of contemporaneous psychiatric patients treated within the same Trust and were matched at a ratio of 1:2. In a separate study, we employed these methods to identify mFND patients who attended an outpatient neuropsychiatry CBT clinic in SLaM, comparing therapeutic outcomes in mFND to patients with organic neuropsychiatric disorders (ONP) treated in the same clinic.

Results Our search returned 322 mFND and 644 control patients. Weakness was the most common functional symptom. mFND patients were more likely to be female, British, married, employed pre-morbidly, to have a carer and a physical health condition, but less likely to have had an inpatient psychiatric admission or to receive benefits. There was no difference in rates of childhood sexual and physical abuse between groups. A lower proportion of mFND patients received medication compared to controls (76.6% v. 83.4%, $p < 0.05$), but of medication recipients, mFND patients were prescribed a higher number and variety of agents. We identified 98 mFND and 76 ONP patients attending the outpatient CBT service. Both groups showed significant improvements in psychological functioning post-CBT (measured with the CORE-OM, HoNOS-ABI, and PHQ-9), with physical symptoms improving in 49.4% of mFND patients. A logistic regression found acceptance of psychological formulations prior to CBT ($p < 0.02$) was associated with improvement in physical functioning in mFND patients.

Conclusions mFND patients have a distinct socio-demographic profile and are prescribed a heterogeneous array of psychotropic and somatic medications. mFND patients treated in a specialist CBT clinic show similar improvements in psychological functioning to patients with organic neuropsychiatric disorders. This study establishes the socio-demographic profile of this under-studied patient group and could help guide the development of future therapeutic interventions and inform the design of a pilot RCT.

16 EFFECT OF METHYLPHENIDATE ON RISK PREFERENCE IN ATTENTION DEFICIT HYPERACTIVITY DISORDER

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10.1136/jnnp-2019-BNPA.16

Introduction Methylphenidate (MPH) is one of most commonly prescribed drug to patients with Attention Deficit Hyperactivity Disorder (ADHD). While MPH has been known to improve executive functions, its effect on impulsivity, one of the cardinal symptoms in ADHD has mixed findings in part depending on baseline. Data driven computational models such as drift diffusion model utilize behavioural measures to explain subtle changes that are not sensitive to traditional