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LETTERS

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Stability of the harm avoidance personality trait in late-life depression

Harm avoidance is one of the four temperament dimensions in Cloninger's psychobiological model of personality (Cloninger *et al.*, 1993). In this model, personality is conceptualized as having four temperament dimensions (novelty seeking, harm avoidance, reward dependence, persistence) and three character dimensions (self-directedness, cooperativeness, self-transcendence). Individuals high in harm avoidance (HA) tend to be described as "worrying and pessimistic; fearful and doubtful; shy; and fatigable." Those with low HA scores are "relaxed and optimistic; bold and confident; outgoing; and vigorous." HA was initially proposed as a personality trait that is independent of the state of depression. However, other reports have found HA to be positively correlated with the severity of depression (Hansenne *et al.*, 1999; Hirano *et al.*, 2002). Repeated within-subject measures have been used to explore the stability of HA in major depression. However, conflicting results are reported in the literature and research in HA is largely with adults (Chien and Dunner, 1996; Marijnissen *et al.*, 2002). The aim of this study is to investigate whether the personality trait of HA is stable over a 12-month period in a group of older people with a history of depression. This is a first report on the stability of HA in an exclusive elderly sample.

The subjects in this study were community patients of the Mental Health Service for Older People in Hamilton, New Zealand. This is a secondary specialist referral service with a catchment population of 40,760 people aged 65 years and over (12% of the total population). The inclusion criteria for the study were (1) age 65 years or more; (2) a diagnosis of major depressive disorder according to the Diagnostic Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) in the past two years; (3) a Standardized Mini-mental Status Examination (MMSE) score of more than 24; (4) living at home; and (5) fluency in English. The exclusion criteria were (1) the presence of a psychotic, bipolar or dementia disorder; and (2) severe vision or hearing impairment which would impact on completing self-rating scales/inventories.

In November 2004, 73 patients in the service met the above inclusion criteria. Approximately half (24 females and 13 males) consented. The mean age was 74.8 (SD = 5.6; range 66–92) years. The mean standardized MMSE score was 28.3 (SD = 1.8; range 24–30). Seventeen patients (46%) were married; eleven (30%) were widowed; and six (24%) were divorced or separated. All participants were of European descent.

The 37 subjects completed the HA items of the Temperament and Character Inventory, which is a self-report inventory comprising a total of 240 true/false questions. There are 34 HA items in the Temperament and Character Inventory. The HA dimension scores range from 0 to 34. A higher score indicates a higher level of HA and similarly, a lower score indicates a lower level of HA. The subjects were re-contacted 12 months later to repeat the ratings. Thirty-two (86%) patients (20 females, 12 males) agreed to participate in the second part of the study. Four patients declined and one patient died after the first part of the study. Paired t-test was used to determine any significant change in the mean HA score from baseline to 12-months' follow-up.

The mean total HA scores were 17.3 (SD = 7.6) at baseline and 17.1 (SD = 9.0) at 12-months' follow-up ($p = 0.85$). As a group, the mean HA score did not change significantly over the 12-month period. This suggests HA is a relatively stable personality trait in this group of elderly patients with a history of depression.

There are a number of limitations in the present study. The sample size is small and consists of clinical subjects. Results of this study may not be generalized to non-clinical older people in the community. A longer longitudinal follow-up (for example, five years) may be useful in determining whether HA will remain stable. Nevertheless, this study has provided preliminary support for applying the construct of HA in older people. Future research on the other six dimensions of the psychobiological model of personality developed by Cloninger *et al*. will provide additional information on the suitability of applying this personality model to older people.

Conflict of interest

None.

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Multiple system atrophy due to prolonged valproic acid treatment

Studies reported in the literature indicate a wide range of movement disorders associated with anti-epileptic treatment (Easterford *et al.*, 2004). Valproic acid is a well-known cause of reversible neurotoxicity characterized by symptoms resembling idiopathic Parkinson's disease (PD) and cognitive impairment (Armon *et al.*, 1996; Onofrj *et al.*, 1998).

Here we describe the case of a woman on prolonged valproic acid treatment, who has developed a neurodegenerative condition mimicking multiple system atrophy (MSA). The patient gave written informed consent to publication of this letter reporting her case.

A 61-year-old woman taking valproic acid since the age of 14 for generalized idiopathic epilepsy was admitted to the Neurology Unit, University of Brescia, Italy. Over the past 20 years, she has been seizure-free on valproic acid (400 mg total integrated dose (t.i.d.)). Her family history was unremarkable for neurodegenerative conditions.

In the past 10 years, however, she has progressively developed extrapyramidal syndrome, characterized by moderate bradykinesia, increased tone along with bilateral cogwheel sign, mild upper limb resting and postural tremor, and brisk reflexes (Unified Parkinson Disease Rating scale, UPDRS-III = 20). Moreover, cerebellar symptoms – i.e. truncal ataxia – and pyramidal signs – i.e. bilateral extensor planter responses – were present. Neuropsychological assessment excluded cognitive impairment.

Routine laboratory exams were within normal range, valproic acid levels were 121 μg/mL (normal range: 40–100). Electroencephalogram (EEG) recordings demonstrated bilateral slowing over the frontal and temporal derivations. Magnetic resonance imaging (MRI) of the brain showed the presence of cerebral