Objective To develop a new questionnaire, the Dimensional Apathy Scale (DAS) which aims to be sensitive to Levy and Dubois’ 3 subtypes of apathy, Auto-Activation, Emotional-affective and Cognitive. To develop a scale suitable for patients with motor disorders in which apathy may be prevalent. To explore the relationship of the DAS with depression.

Method Study design and item development: Twelve published single dimension Apathy scales were reviewed. Item selection was based on the three subtypes of apathy. 45 suitable items were designed. A balanced 4 point Likert scale was used with item rating based on the frequency of occurrence in the last month associated with how they felt, behaved or thought.

Procedure: Study A (N=261) was an online 45 item questionnaire using Limesurvey, a free and open source survey software tool. Study B (N=50) was a paper and pencil version of the 45 item questionnaire accompanied by completion of Becks Depression Inventory 2.

Results Stage 1 Analysis: Horn’s parallel analysis of principal factors of all 311 participants highly factorable data indicated 4 factors to be extracted. Exploratory factor analysis produced 4 factors accounting for 28.9% of the total variance. The factors were labelled Executive (Ex), Emotional (Em), Cognitive Initiation (CI) and Behavioural Initiation (BI) with the final two factors combined Behavioural Cognitive Initiation (BCI) apathetic factor. The most meaningful and relevant 8 items were extracted from each factor to make 3 subscales (Ex, Em and BCI) to construct the new 24 item DAS. Stage 2 Analysis: Internal consistency reliability of the extracted DAS items was high, Cronbach’s standardized $\alpha = .798$. A 50 participant sub-sample showed moderate correlations between depression and the three different apathy subscale total scores. Both the Ex and Em subscales correlated significantly with depression scores (Ex $r = .553$, $p < .001$, Em $r = .365$, $p < .01$) and BCI being least significant ($r = .354$, $p > .05$).

Conclusion The question analyses revealed four factors, which have been combined to make 3 dimensions of Executive, Emotional and Behaviour/Cognitive Initiation of the DAS. The subscale items show good internal consistency reliability. The BCI subscale was most associated with depression levels. Future studies will apply the DAS to different disease profile with the aim of distinguishing between the different apathy subtypes associated with each.
Correction

Radakovic R, Abrahams S. The development of a new apathy measurement scale: dimensional apathy scale (J Neurol Neurosurg Psychiatry 2013;84:e1). The author would like to point out that there were some errors in the abstract. In the results section, under “State 2 Analysis” the sentence should be: “Internal consistency reliability of the extracted DAS items was high, Cronbach’s standardized alpha=.798.” In the last sentence of this section, there were some incorrect symbols beside the p values. The sentence should read: “Both the Ex and Em subscales correlated significantly with depression scores (Ex r=.553, p<.001, Em r=.365, p<.01) and BCI being least significant (r=.354, p<.05).” Finally, the second to last sentence should read: “The Ex subscale was most associated with depression levels.”

J Neurol Neurosurg Psychiatry 2013;84:1180.
doi:10.1136/jnnp-2013-306103.33corr1