CLINICAL PRACTICE

Movement Disorders

# Screening Instruments and Prevalence of Impulse Control Disorders

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In a previous issue of *Mov Disord Clin Pract*, Parra-Díaz et al. published an article, entitled "Does the country make a difference in impulse control disorders? A systematic review".<sup>1</sup> The authors conducted a systematic search of studies investigating the prevalence of impulse control disorders (ICDs) to identify possible differences across countries. Altogether, 32 studies from 22 countries and three continents were included in the review. They report that ICDs were more frequent in Western countries than in Asia. On each continent, ICDs were most common in the UK, the USA and India. They also describe differences in the prevalence of ICD subtypes and note that the ICD prevalence was dependent on the demographical/clinical characteristics of the studied population and instruments used.

Given the large number of published papers with highly variable prevalence estimates, we find the systematic review collating all these studies very useful and complement the authors for their valuable contribution to the literature. However, there are some methodological issues that we want to highlight when interpreting the findings from these studies.

First, the methodology used to detect ICDs is critically important because it can have a substantial effect on the resulting prevalence rate. The Questionnaire for Impulsive-Compulsive Disorders in Parkinson's Disease (QUIP), which was used in more than half of the studies, is a screening tool that has high sensitivity but relatively low specificity.<sup>2</sup> Therefore, the prevalence rates obtained using QUIP can be clearly higher than those obtained using the gold standard diagnostic interview, and directly comparing the prevalence rates from studies using different methods can be misleading.

Second, as the authors noted, studies investigating the prevalence have included a variable list of disorders in the prevalence rates. Some of the studies included compulsive behaviors (punding, hobbyism, and walkabout), which are relatively common, and including these behaviors will substantially increase the overall prevalence estimates. For example, the study from our university in Finland included only ICDs (34.8%), whereas a study from Spain also included compulsive behaviors (totaling 58.3%).<sup>3,4</sup> It would be incorrect to use these numbers to state that ICDs are clearly more common in the Spanish sample than in the Finnish sample. This issue is further complicated by differences in the included patient populations in different studies, which also confounds the direct comparison between countries. In addition, the sensitivity/specificity of the screening instruments can differ between ICD subtypes, which can be reflected in prevalence estimates of each ICD subtype, deferring direct comparisons of the reported percentages between subtypes.

We agree with the authors that overall and ICD subtype prevalence rates and their differences between countries are important as they can guide clinical practice and policy making. However, as the samples are heterogeneous and methods vary between studies, collating or directly comparing exact prevalence rates should be performed very cautiously.

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## Disclosure

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### References

- Parra-Díaz P, Chico-García JL, Beltrán-Corbellini Á, et al. Does the country make a difference in impulse control disorders? A systematic review. Mov Disord Clin Pract 2021;8(1):25–32.
- Weintraub D, Hoops S, Shea JA, et al. Validation of the questionnaire for impulsive-compulsive disorders in Parkinson's disease. *Mov Disord* 2009;24 (10):1461–1467.
- 3. Joutsa J, Martikainen K, Vahlberg T, Voon V, Kaasinen V. Impulse control disorders and depression in Finnish patients with Parkinson's disease. *Parkinsonism Relat Disord* 2012;18(2):155–160.
- Vela L, Martínez Castrillo JC, García Ruiz P, et al. The high prevalence of impulse control behaviors in patients with early-onset Parkinson's disease: A cross-sectional multicenter study. J Neurol Sci 2016;368:150–154.