LETTER TO THE EDITOR

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Geriatric gambling disorder: challenges in clinical assessment

To the Editor: The gaming industry is growing rapidly, as is the proportion of older adults aged 65 years or older who participate in gambling (Tse et al., 2012). With casinos tailoring their venues and providing incentives to attract older adults, and with the increasing popularity of "pleasure trips" to casinos organized by retirement homes, plus active promotion of government-operated lotteries in many countries, this trend is likely to continue. Gambling disorder (GD) or "pathological" or "problem" gambling presents a public health concern in the geriatric population. However, ascertainment of its prevalence and diagnostic accuracy have proven challenging. This is largely due to the absence of diagnostic criteria specific to the geriatric age and rating scales validated for use in this population.

The Diagnostic and Statistical Manual of Mental Disorders, 5th edition defines GD as "persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress in a 12-month period" (American Psychiatric Association, 2013). To meet diagnostic criteria, patients must display at least four of the following nine potential maladaptive gambling behaviors:

- Increasing amounts of money gambled to achieve the desired excitement.
- 2. Feeling restless or irritable when attempting to cut down or stop gambling.
- 3. Unsuccessful efforts to control, cut back, or stop gambling.
- 4. Preoccupation with gambling.
- 5. Gambling when feeling distressed.
- 6. Returning another day to get even after losing money gambling.
- 7. Lying to conceal gambling.
- 8. Impairment in interpersonal, occupational, or educational function because of gambling.
- 9. Asking others for money to relieve desperate financial situations caused by gambling.

Prevalence estimates of such "pathological" or "problem" gambling behaviors have been difficult to ascertain in geriatric populations, owing largely to variances in sampling methodologies and the myriad of scales used among studies, many of which are of questionable validity for studying geriatric population samples. To our knowledge, there are currently no validated scales to aid

in the epidemiological or clinical assessment of gambling behaviors in the geriatric population. A recent review (Subramaniam et al., 2015) reported an estimated prevalence of "problem" or "pathological" gambling in older adults as being somewhere between 0.01%–10.6%. This systematic review incorporated findings from 25 different studies, from which 18 were population studies. The remainder sampled older adults recruited directly from gambling venues (e.g. casinos, bingo halls, horse racing tracks). This sampling bias between studies contributes to the wide range of prevalence estimates reported.

Regarding the scales used to assess problem gambling, ten studies employed the popular "South Oaks Gambling Screen" (SOGS) or one of its variants (Lesieur and Blume, 1987). This 20item scale is the one most often employed within epidemiological studies on gambling. However, some items on the SOGS, and even in the DSM-5 diagnostic criteria for GD (e.g. jeopardizing work or educational prospects due to gambling), may not necessarily apply to older adults. In older adults who may be isolated due to loss of a spouse or peers, the burden of gambling on interpersonal relationships addressed in the SOGS, other gambling rating scales, and the DSM-5 criteria, become less relevant as major relational and other role obligations may not be compromised as a result. For older adults who receive regular, fixed allowances of disposable income, the financial losses incurred through problem gambling may not be as evident or devastating as compared to younger populations, who often still have obligations such as mortgages to pay off or dependent children to support. There is also a need to describe the older adults with GD with financial resources that allow for an "indefinite" disposable income, which may nonetheless ultimately lead to gradual depletion of assets. Therefore, adequately identifying all spectrum of maladaptive gambling behaviors may require also focusing on the disposable time, or frequency of such gambling behaviors, in addition to the more traditional view of functional financial impact these behaviors may have on older

Furthermore, the gambling rating scales currently in use fail to consider more recent (and increasingly popular) digital gambling activities of online poker and other online games (Tse et al., 2012). Online gambling activities can prove enticing to older adults, especially those suffering with sensory or mobility impairments

which may hinder them from travelling to frequent conventional gambling establishments.

Many of the scales currently in use to assess problem gambling, including the SOGS, are self-report scales. For older adults suffering from neurocognitive disorders in whom recall, insight, and judgment may be impaired, the importance of collateral information in making a diagnosis of GD is paramount.

Whether there may be two "phenotypes" of geriatric GD remains speculative and could be an area of inquiry. There may be some geriatric patients with GD who have had longstanding GD and are best thought of as "middle aged GD patients grown old." In such cases, cumulative effects of a lifetime of problematic gambling and its destructive effects on interpersonal relationships may be the context of presentation. There may be others with "geriatric onset" GD without a life of problematic GD, who develop GD only at advanced age. These patients may initially seek the social activity for which gambling is the focus of attention, rather than the long-term GD patient who may be more solitary.

GD should be a consideration in geriatric patients and would be worthwhile to screen for in any diagnostic assessment. Creating a clinically validated gambling rating scale specific for a geriatric population is needed. This is especially important in patients with Parkinson's disease, restless leg syndrome, or hyperprolactinemia for which prescribed dopamine receptor agonists (e.g. pramipexole, ropinirole, pergolide, rotigotine, apomorphine, or bromocriptine) have been associated with severe impulse control disorders including GD, hypersexuality, and compulsive shopping (Moore et al., 2014). Such adverse events have also been reported in patients treated with aripiprazole, an antipsychotic classified as a partial agonist of the D3 receptor (Moore et al., 2014). It is therefore important to maintain high clinical vigilance for a GD diagnosis in patients with suggestive symptomatology, particularly in those predisposed to such drug-related adverse effects. In addition, GD may be a presenting syndrome in association with neurocognitive disorders, especially those preferentially affecting frontal lobe function (Ozel-Kizil *et al.*, 2013).

In addition to the physical and/or pharmacological causes of GD above, the comorbidity of GD needs to be assessed in older adults with apparently problematic gambling. Tachycardia and angina are more common in GD patients and may especially be problematic in the older adult with GD (American Psychiatric Association, 2013). High rates of psychiatric comorbidity in GD include substance use, depressive, anxiety, and personality disorders (American Psychiatric Association, 2013). For older adults who gamble, the disinhibition due to alcohol (readily available at gambling institutions) must be separately addressed. Independent assessment and interventions for these psychiatric comorbid conditions is similarly important, and comprehensive care for GD and the psychiatric comorbidity may be needed for these conditions to have the most favorable outcomes.

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