Research highlights

1. Use of new psychoactive substances (NPS) has been a new threat to global public health but an international consensus to schedule and control NPS is still lacking.
2. Rational scheduling with comprehensive and objective indicators is the first step toward effective NPS control.
3. An expert Delphi procedure with 11 indicators from four dimensions of drug-related harms-- addiction, misuse, social harm and physical harm-- was applied to assess harms of 37 addictive substances.
4. This study provides a mechanism to scrutinize, and improve, the current evaluation process for NPS scheduling.