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Background & Aims

As new cannabis products and administration methods proliferate (EMCDDA, 2019), patterns of use are becoming increasingly heterogeneous (Meacham *et al.*, 2018). However, few studies have explored different profiles of cannabis use and their association with problematic use.

We aimed to identify subgroups of cannabis users on the basis of their use of different cannabis products, and then explore variations in their association with cannabis dependence severity and rates of lifetime mental health diagnoses.

Method

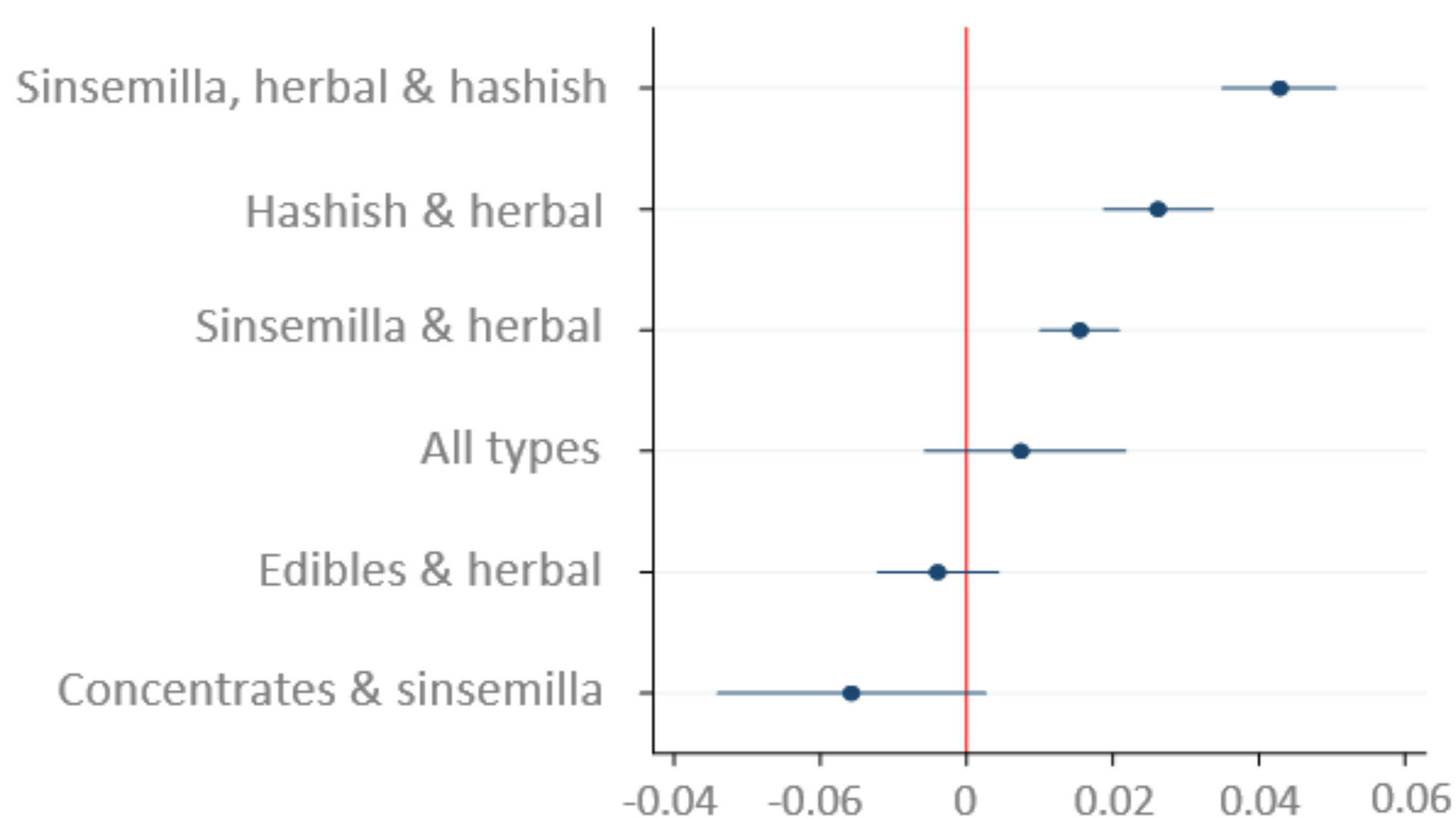
- **Latent class analysis (LCA)** of 55,240 participants recruited from the Global Drug Survey (GDS) 2018 – an online **self-selecting survey**. Mean age 25.0 (S.D. 8.9); 71.2% male.
- **Past 12 month** use of 6 different cannabis types used as LC indicators: **sinsemilla, herbal, hashish concentrates, kief, edibles** (yes/no).
- A **linear regression** model explored associations between **LC membership** and **severity of cannabis dependence** (Severity of Dependence Scale; SDS). The model adjusted for age, gender, amount and frequency of cannabis use and tobacco co-administration.
- Pairwise comparisons (χ^2) examined differences in rates of **lifetime mental health diagnoses** between LC's.

Results

Seven class model characterised as:

1. Sinsemilla & herbal (30.3% of the sample)
2. Sinsemilla, herbal & hashish (20.4%)
3. Hashish & herbal (18.8%)
4. Herbal (18.4%)
5. All types (5.7%)
6. Edibles & herbal (4.6%)
7. Concentrates & sinsemilla (1.7%)

Figure 1. Standardised regression coefficients & 95% CI for associations between LC and cannabis dependence (relative to the Herbal class).



The two classes characterised by **concentrate use (All Types, Concentrates & sinsemilla)** reported significantly **higher rates of lifetime mental health disorder diagnoses** than all other classes (p 's<0.002).

Conclusions

- These results highlight that people who use cannabis may use a **variety of different products in various combinations**, and that this can account for **significant variation in cannabis dependency and mental health disorder diagnoses**.
- These results also demonstrate the importance of future studies using **cannabis assessment tools** that are able to account for the **variability in the products currently being used**.

References

[1] EMCDDA (2019). *Developments in the European cannabis market*. EMCDDA Papers.

[2] Meacham, M. C., Paul, M. J. & Ramo, D. E. (2018). Understanding emerging forms of cannabis use through an online cannabis community: An analysis of relative post volume and subjective highness ratings. *Drug and Alcohol Dependence* 188, 364-369.