

AGREEMENT BETWEEN SELF-REPORTS AND PHOTOS TO ASSESS E-CIGARETTE DEVICE AND LIQUID CHARACTERISTICS

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Background

E-cigarette devices and liquids have features that impact user experience, use patterns, and health. Surveys assessing these features may help illuminate key outcomes. Research indicates self-report e-cigarette device and liquid information can be unreliable. We evaluated the agreement between self-reports and user-uploaded photos to inform future survey development.

Methods

- Adults aged 21+ using e-cigarettes 5+ days/week (N=363) reported on and submitted photos of their most used e-cigarette devices (n=233) and liquids (n=196)
- When valid photos and self-reports were available, percentage agreement was calculated between photos and self-reports for device and liquid variables (**Table 1**)
- Challenges with device and liquid photo submissions were noted (**Table 2**)

Self-report questions may be sufficient for assessing certain e-cigarette device and liquid characteristics. Photo submissions may also play an important role but can present their own challenges.

Table 1. Percent agreement between self-reports and photos

Variable	Comparisons made	Percent agreement
Device reusable/disposable	223	99.6%
Device refillable/nonrefillable	220	96%
Display presence	220	95%
Adjustable power presence	220	95%
Liquid flavor	113	92%
Device brand	232	88%
Nicotine salt	133	85%
Liquid brand	161	78%
Nicotine concentration	101	75%
Container size	93	75%

Table 2. Challenges with e-cigarette device and liquid photos

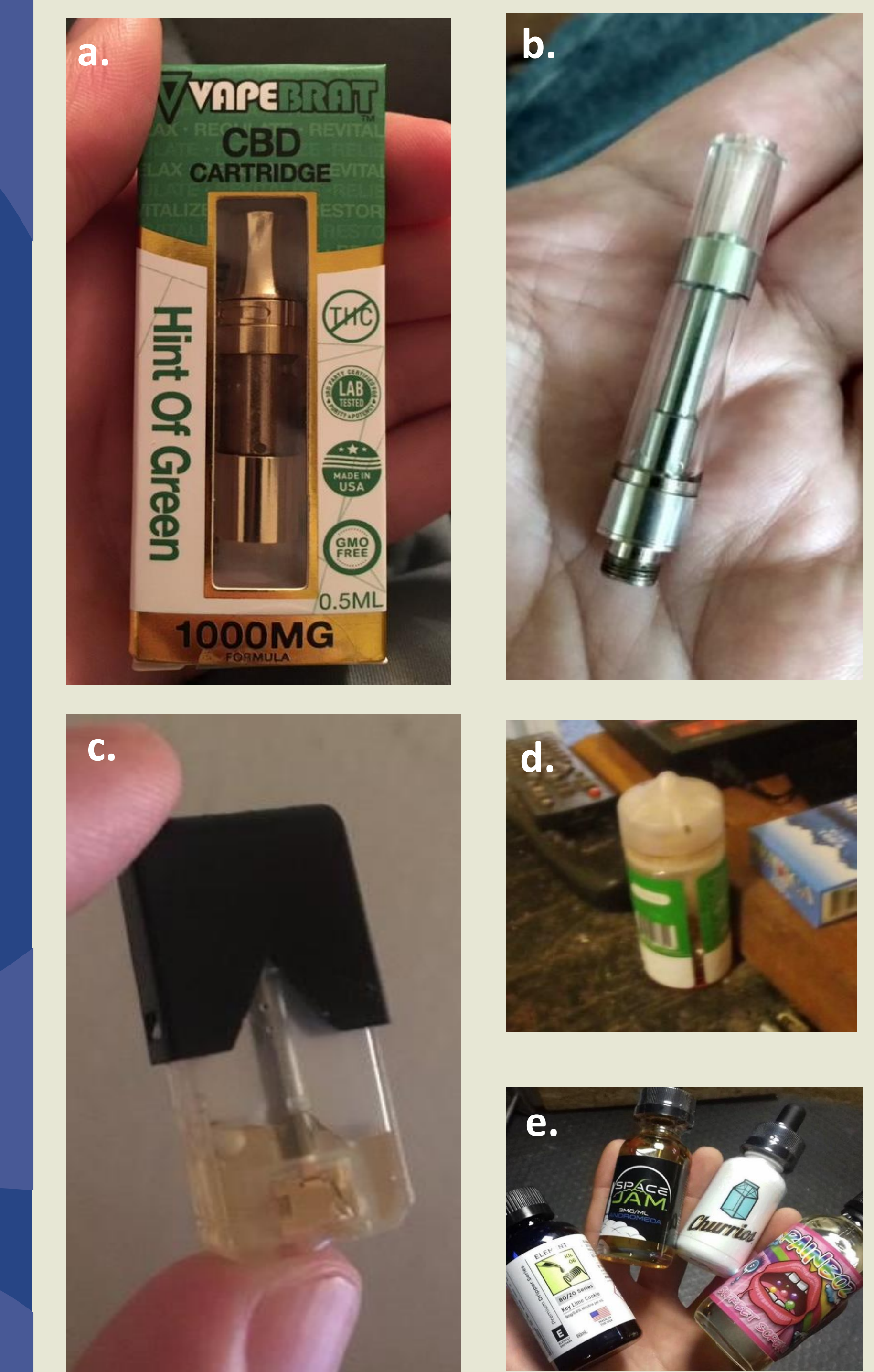
Photo challenge	n	Percent
Device Photos		
No photo	121	33.3%
Brand not identifiable	6	1.6%
Internet photo	3	0.8%
Liquid Photos		
No photo	138	38%
Third-party pod/cartridge	9	2.5%
Brand not identifiable	5	1.4%
Internet photo	3	0.8%
Multiple liquids	3	0.8%
Non-PG/VG substance	3	0.8%
Poor photo quality	3	0.8%
Refillable pod/cartridge	3	0.8%
Not a liquid	2	0.6%

Examples of useable photos



Results

Examples of photo submission challenges



(a) non-PG/VG substance; (b) refillable pod/cartridge; (c) third-party pod/cartridge (d) brand not identifiable/poor photo quality; (e) multiple liquids

Authors have nothing to disclose

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