

Comparing Users' and Vaping Product Characteristics, Patterns of Product Use, Puffing Topography, and Nicotine Exposure Between Pod and Mod ENDS Users

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Clinical: Pharmacology

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Background

Mods¹⁻²

- Modifiable
- Open systems
- Lower nicotine content
- Freebase nicotine
- Higher power



Pods

- Newer devices
- Closed or open system
- Higher nicotine content³
- Salt-based nicotine⁴
- Quick rise to popularity⁵



Purpose: Compare users of mod & pod ENDS on demographic characteristics, tobacco/ENDS use history, product/liquid characteristics, behavior, and nicotine exposure.

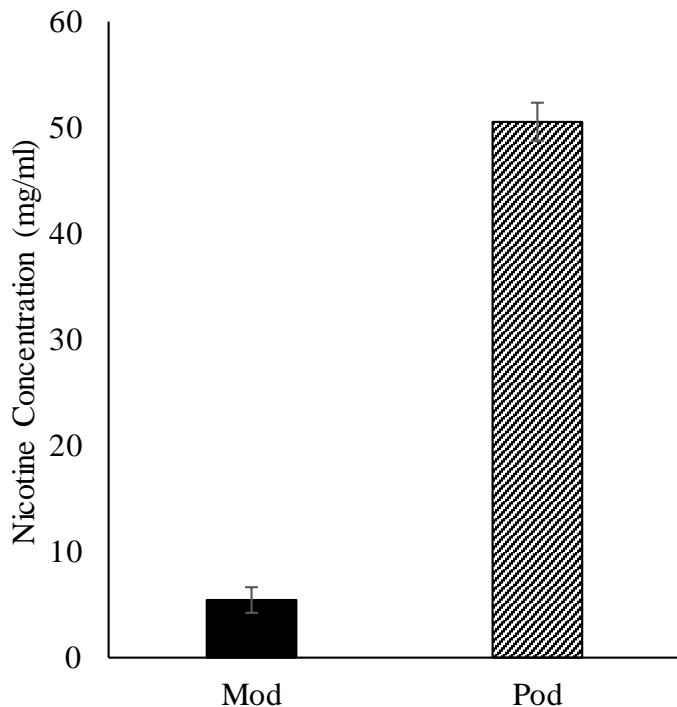
Method

- 51 ENDS Users
 - 26 mod-freebase
 - 25 pod-salts
- Single Session
 - Questionnaires
 - Liquid constituents
 - Urinary cotinine
 - *Ad lib* puff topography

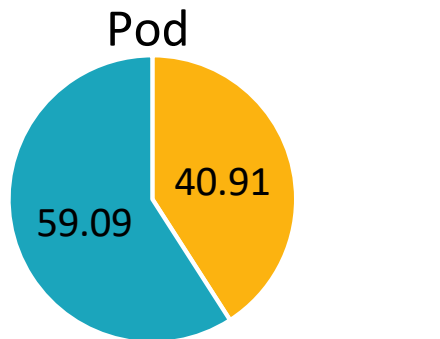
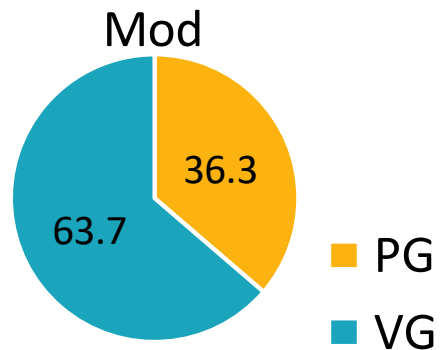
	Mod	Pod	<i>p</i>
Demographics			
Age	27.6 (1.3)	23.6 (1.6)	0.052
% Male	73.1%	60.0%	0.32
% White	96.2%	88.0%	0.24
Smoking History			
Ever Puff Cigarette	92.3%	92.0%	0.97
100+ Cigarettes	73.1%	56.0%	0.24
Months Quit	48.8 (7.8)	28.8 (5.7)	< .05
Device			
Variable Voltage	80.8%	19.2%	<.001
Refillable	100.0%	44.0%	<.001
Flavor			
Fruit	53.8%	40.0%	
Candy/Sweet	30.8%	8.0%	
Tobacco	3.8%	16.0%	
Menthol/Mint	7.7%	16.0%	
Other	3.8%	0.0%	

Liquid Constituents

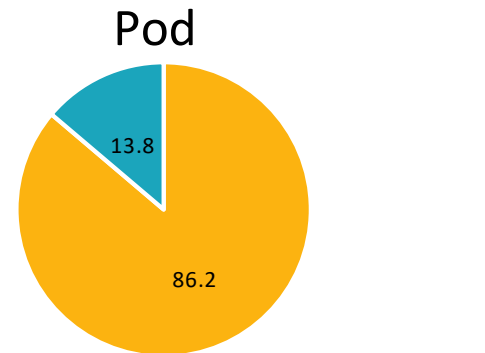
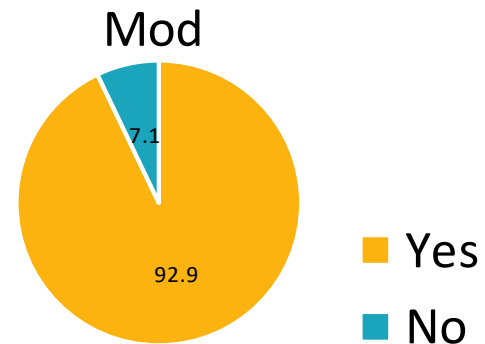
Liquid Nicotine Concentration*



PG:VG Ratio

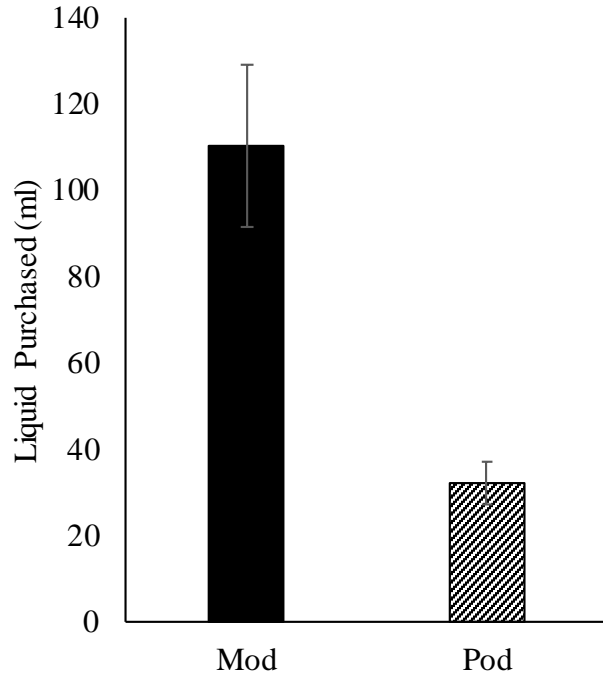


Salts Present*

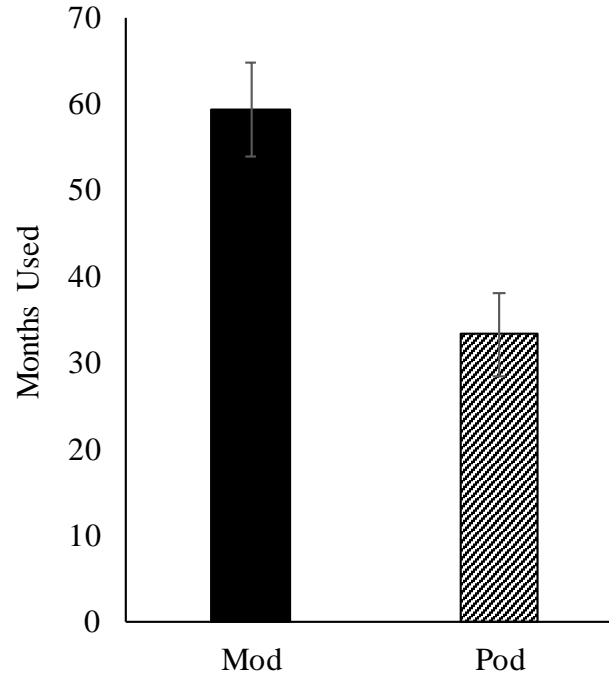


ENDS Use and Nicotine Exposure

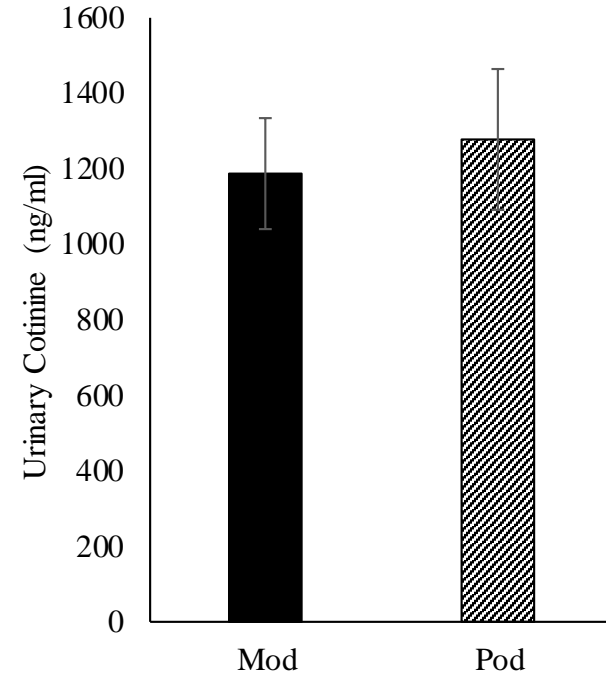
Liquid Purchased (past month)*



Months Used*



Urinary Cotinine



Puff Topography

	Mod-Free	Pod-Salt	<i>t</i>	<i>p</i>
Total Bout Values				
Puff Count	6.32 (0.98)	6.50 (3.82)	-0.14	0.89
Puff Duration (s)	11.61 (2.27)	13.22 (2.33)	-0.49	0.62
Puff Volume (ml)	860.63 (143.94)	1051.66 (211.26)	-0.75	0.46
Average Puff Values				
Puff Duration (s)	1.68 (0.20)	1.98 (0.15)	-1.19	0.24
Interpuff Interval (s)	13.65 (2.07)	11.96 (1.69)	0.63	0.53
Puff Volume (ml)	129.08 (16.62)	154.80 (12.32)	-1.23	0.23
Puff Flow Rate (ml/s)	73.59 (6.00)	77.86 (5.09)	-0.54	0.52

Conclusions

- Pod and mod users share similar demographic and smoking characteristics
- Devices and liquid differ – nicotine content & presence of salt
- Mod users consume more liquid with lower nicotine concentrations, as observed for other ENDS types⁶
- Mod and pod users exposed to similar levels of nicotine

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