

Waterpipe Tobacco Addiction

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The 2017 National Conference on Tobacco or health



Daily VS. Intermittent Tobacco Smoking

Daily Smokers

- Smoke on daily basis
- Nicotine dependent
- Self-identify “smoker”
- Difficulty in quitting
- Well researched
- Tobacco treatment guidelines

Intermittent Smokers

- Smoke on some days
- Less nicotine dependent
- Tend to not label themselves “smokers”
- Are not recent tobacco initiators
- Difficulty in quitting
- Less researched
- No treatment guidelines

Motives for Intermittent Tobacco Smoking

- Positive reinforcement: desire to smoke to experience a “buzz”
- Experience the smell, taste and sensation of smoking
- Control body weight or appetite
- Situational influences

(Shiffman et al., 2012)

Frequency Of Waterpipe Smoking

- Monthly
- Weekly:
 - < 3 times/wk
 - ≥ 3 times/wk
- Daily:
 - Daily waterpipe use produces a urinary cotinine level equal to smoking 10 cigarettes per day (Neergaard et al., 2007).

Assessment of Tobacco Addiction

DSM-5:

11 diagnostic criteria for tobacco use. Dependence ≥ 2 criteria.

- Withdrawal symptoms
- Craving
- Larger amounts/longer period
- Unsuccessful quit attempts

(Hasin et al., 2013)

Light WP Tobacco Smoking

The effects of nicotine on occasional WP smokers.

- Smoked WP ≤ 2 /wk
- Did not use OTP
- Methods: smoked WP on Mondays, FU 24hrs, 48hrs
- Questionnaire on Smoking Urges (QSU): pre, post, 24hrs and 48hrs.

Light WP Tobacco Smoking

Mean puff topography measures by nicotine and non-nicotine conditions

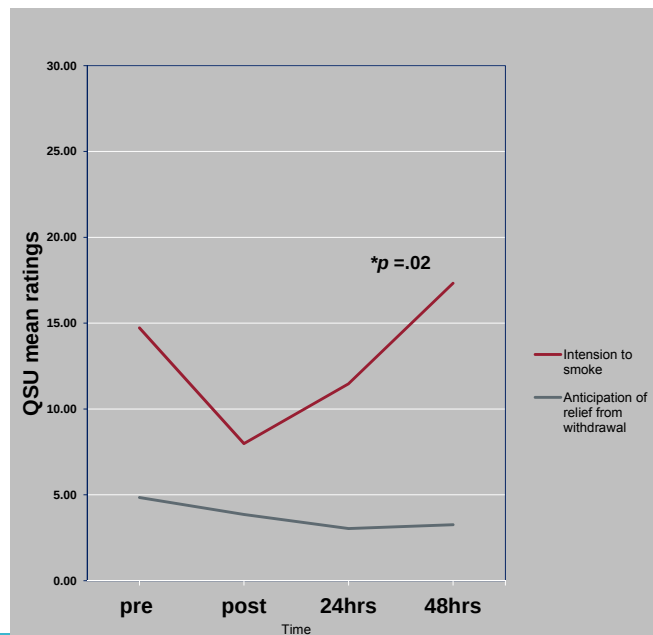
Puff topography parameters	Nicotine M (SD)	Non-nicotine M (SD)	p-Value ^a
Average puff volume (liters)	0.55 (0.50)	0.87 (0.62)	0.02
Average puff duration (seconds)	2.97 (1.85)	4.04 (1.90)	0.03
Average intermittent puff intervals (IPI) (seconds)	16.97 (11.17)	13.92 (6.42)	0.13
Total number of puffs	187 (128)	109 (54)	0.03
Smoking visit duration (minutes)	46.11 (15.07)	29.55 (12.92)	0.004

^a p-Value from paired t-tests comparing the mean puff topography measures for participants during both the nicotine and non-nicotine conditions.

Light WP Tobacco Smoking

- QSU at 48hrs:
- Intention to smoke *
- Anticipation of relief from withdrawal symptoms

(Shishani, Howell, McPherson, Roll, 2014)



Heavy Tobacco Smoking

The effects of WP smoking on tobacco abstinence symptoms.

- Heavy WP smokers
- Abstained from smoking WP for 24hr.
- Post smoking symptoms relief:
 - QSU: ↓ Intention to smoke
 - QSU: ↓ Anticipation of relief from withdrawal
 - ↓ Urges to smoke WP
 - ↓ Craving

(Maziak , Rastam , Ibrahim , Ward , Shihadeh , & Eissenberg, 2009)

WP Tobacco Addiction

Youth:

- 30% of initiators in the 7th grade progress in WP smoking (Jaber et al., 2015)
- 23% of 8th- 9th grade felt addicted
- 4% of 8th- 9th grade reported craving (Bahelah et al. , 2016)

Adult:

- 50% of interested in quitting report a past-year unsuccessful quit attempt (Smith-Simone et al., 2008).
- 12.9% self-report hooked on a waterpipe (Ward et al., 2005).
- Insufficient WP addiction measures (Maziak et al., 2016)

Tobacco Cessation Interventions for WP Smokers

Behavioral cessation treatment of WP smoking:

- Only WP smoking; ≥ 3 times/week; n=50
- Willing to quit
- 50 randomized to:
 - Brief: 1 session + 3 calls (usual care)
 - Intensive: 3 sessions + 5 call
- Three month abstinence:
 - Brief 30%, Intensive 44%

(Asfar, Al Ali, Rastam, Maziak, Ward, 2014)

Tobacco Cessation Interventions for WP Smokers

Contingency management role in WP smoking cessation:

- Only WP smoking; ≥ 3 times/week
- Not willing to quit
- 39 randomized to:
 - Noncontingent control (NC)
 - Contingency management (CM)

(Shishani, Odom-Maryon, Roll, under review)