

Tobacco in Australia

Facts & Issues

Relevant news and research

6.12 Measures of tobacco dependence

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Research:	1
News reports:	13

Research:

Pahlavanzadeh, B, & Charkazi, A. (2024). The Agreement between the Fagerstrom Test for Nicotine Dependence and the Heaviness of Smoking Index among Iranian Male Smokers. *Addict Health*, 16(3), 159-162. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39439858>

Solinas, M, Chauvet, C, Lafay-Chebassier, C, Vanderkam, P, Barillot, L, Moeller, SJ et al. (2024). Tobacco Images Choice and Its Association with Craving and Dependence in People who Smoke Cigarettes. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38850196>

Afolalu, EF, Salzberger, T, Abetz-Webb, L, Cano, S, Weitkunat, R, Rose, JE, & Chrea, C. (2024). Development and initial validation of a new self-report measure to assess perceived dependence on tobacco and nicotine products. *Sci Rep*, 14(1), 10098. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38698227>

Garcia-Couceiro, N, Kim-Harris, S, Gomez, P, Isorna, M, & Rial, A. (2024). Adaptation and Validation of the Hooked on Nicotine Checklist (HONC) with Spanish Adolescents. *Arch Bronconeumol*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38580487>

Bontemps, AP, Piper, ME, & Cropsey, KL. (2024). Psychometric properties of the FTCD and Brief WISDM: support for validity in a legal-system-involved sample. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38267236>

Zhu, T, Wang, W, Chen, Y, Kranzler, HR, Li, CR, & Bi, J. (2023). Machine Learning of Functional Connectivity to Biotype Alcohol and Nicotine Use Disorders. *Biol Psychiatry Cogn Neurosci Neuroimaging*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37696489>

Han, B, Einstein, EB, & Compton, WM. (2023). Patterns and Characteristics of Nicotine Dependence Among Adults With Cigarette Use in the US, 2006-2019. *JAMA Netw Open*, 6(6), e2319602. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37351884>

Xiong, X, Feng, J, Zhang, Y, Wu, D, Yi, S, Wang, C et al. (2023). Improved HHT-microstate analysis of EEG in nicotine addicts. *Front Neurosci*, 17, 1174399. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37292161>

Fu, Y, Li, X, Zhang, S, Chen, H, Wang, H, Han, S et al. (2022). A self-administered questionnaire to measure Chinese smokers' cigarette dependence. *J Ethn Subst Abuse*, 1-17. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36449409>

Lim, KH, Cheong, YL, Sulaiman, N, Yah, XY, Mahadzir, ME, Lim, JH et al. (2022). Agreement between the Fagerstrom test for nicotine dependence (FTND) and the heaviness of smoking index (HSI) for assessing the intensity of nicotine dependence among daily smokers. *Tob Induc Dis*, 20, 105. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36474605>

Morean, M E, & Bold, KW. (2022). The Modified Cigarette Evaluation Questionnaire: Psychometric properties of the originally-proposed five-factor structure and a novel four-factor structure for use with adults who currently smoke cigarettes. *Drug Alcohol Depend*, 241, 109684. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36371995>

Sancho-Domingo, CMA, Carballo, JLP, Coloma-Carmona, AP, van-der Hofstadt Roman, C P, Asensio Sanchez, SMD, & PhD. (2022). Psychometric Validity of the Minnesota Tobacco Withdrawal Scale in Smokers Attempting to Quit: Longitudinal Invariance across Smokers and Abstainers. *J Psychoactive Drugs*, 1-8. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36007141>

Fu, M, Carnicer-Pont, D, Castellano, Y, Ballbe, M, Sureda, X, Raich, A et al. (2022). Measuring cigarette dependence: A comparison of two scales in two different groups of smokers. *Tob Prev Cessat*, 8, 15. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35515714>

Gutenkunst, SL, & Bell, ML. (2022). Managing missing items in the Fagerstrom Test for Nicotine Dependence: a simulation study. *BMC Med Res Methodol*, 22(1), 145. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35596136>

Shmulewitz, D, Stohl, M, Greenstein, E, Roncone, S, Walsh, C, Aharonovich, E et al. (2021). Validity of the DSM-5 craving criterion for alcohol, tobacco, cannabis, cocaine, heroin, and non-prescription use of prescription painkillers (opioids). *Psychol Med*, 1-15. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/35506791>

Dawes, K, Andersen, A, Reimer, R, Mills, JA, Hoffman, E, Long, JD et al. (2021). The relationship of smoking to cg05575921 methylation in blood and saliva DNA samples from several studies. *Sci Rep*, 11(1), 21627. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/34732805>

Gonzalez-Roz, A, Secades-Villa, R, Aonso-Diego, G, Weidberg, S, & Fernandez-Hermida, J R. (2021). No evidence of the clinical utility of single-item breakpoint to inform on tobacco demand in persons

with substance use disorders. *Psychopharmacology (Berl)*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/34031700>

Sujal, P, Anand, P, & Abhishek, S. (2021). Heaviness of Smoking Index versus Fagerstrom Test for Nicotine Dependence among Current Smokers of Ahmedabad City, India. *Addict Health*, 13(1), 29-35. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33995957>

Bucklin, M. (2021). A 5-Factor Framework for Assessing Tobacco Use Disorder. *Tob Use Insights*, 14, 1179173X21998355. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33716514>

Smith, SS, Piper, ME, Bolt, DM, Kaye, JT, Fiore, MC, & Baker, TB. (2021). Revision of the Wisconsin Smoking Withdrawal Scale: Development of brief and long forms. *Psychol Assess*, 33(3), 255-266. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33779203>

Carrozzino, D, Sparle Christensen, K, Mansueto, G, & Cosci, F. (2021). Construct validity of the Smoker Complaint Scale: A clinimetric analysis using Item Response Theory (IRT) models. *Addict Behav*, 117, 106849. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33610959>

Hallit, S, Obeid, S, Sacre, H, Akel, M, Khoury, A, & Salameh, P. (2021). Adaptation of the Young Adults' Cigarette Dependence (YACD) Scale for the development and validation of the Adolescent Cigarette Dependence Scale (ACDS). *Environ Sci Pollut Res Int*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33543440>

Pahlavanzadeh, B, Naghibi, SA, Berdi-Ozounidavaji, R, Zarghami, F, Shahbazi-Sighaldeh, S, Mohammadinia, A et al (2020). Evaluation of the Psychometric Properties of the Lebanon Waterpipe Dependence Scale in a Sample of Iranian Waterpipe Smokers. *Addict Health*, 12(4), 287-293. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33623648>

Salhi, L, Seidel, L, Albert, A, & Lambert, F. (2020). Fagerstrom test for nicotine dependence as an indicator in tobacco-related studies in periodontology. *J Periodontol*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33480446>

Ghorbani Behnam, S, Mousavi, SA, & Emamian, MH. (2020). Adaptation, Validity, and Reliability Assessments for the Persian Version of the Tobacco Craving Questionnaire-Short Form. *Int J Prev Med*, 11, 161. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33312470>

Mushtaq, N, & Beebe, LA. (2020). Evaluating the Psychometric Properties of the Severson 7-item Smokeless Tobacco Dependence Scale (SSTDS). *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33367922>

Alam, MM, Ward, KD, Bahelah, R, Kalan, ME, Asfar, T, Eissenberg, T, & Maziak, W. (2020). The Syrian Center for Tobacco Studies-13 (SCTS-13): Psychometric evaluation of a waterpipe-specific nicotine dependence instrument. *Drug Alcohol Depend*, 215, 108192. Retrieved from: <https://www.ncbi.nlm.nih.gov/pubmed/32738447>

Manoliu, A, Haugg, A, Sladky, R, Hulka, L, Kirschner, M, Bruhl, AB et al (2020). SmoCuDa: A Validated Smoking Cue Database to Reliably Induce Craving in Tobacco Use Disorder. *Eur Addict Res*, 1-8. Retrieved from: <https://www.ncbi.nlm.nih.gov/pubmed/32854096>

Nighbor, TD, Barrows, AJ, Bunn, JY, DeSarno, MJ, Oliver, AC, Coleman, SRM et al (2020). Comparing participant estimated demand intensity on the cigarette purchase task to consumption when usual-

brand cigarettes were provided free. *Prev Med*, 106221. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/32717262>

Chellian, R, Behnoor-Rod, A, Wilson, R, Wilks, I, Knight, P, Febo, M, & Bruijnzeel, AW. (2020). Exposure to smoke from high- but not low-nicotine cigarettes leads to signs of dependence in male rats and potentiates the effects of nicotine in female rats. *Pharmacol Biochem Behav*, 196, 172998. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/32681850>

Le Grande, M, Borland, R, Yong, HH, Cummings, KM, McNeill, A, Thompson, M, & Fong, GT. (2020). Predictive power of dependence measures for quitting smoking. Findings from the 2016-2018 ITC Four Country Smoking and Vaping Surveys. *Nicotine Tob Res*. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32556210>

Branstetter, SA, Muscat, JE, & Mercincavage, M. (2020). Time to First Cigarette: A Potential Clinical Screening Tool for Nicotine Dependence. *J Addict Med*. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31972768>

Taniguchi, C, Tanaka, H, Nakamura, S, Saito, S, & Saka, H. (2019). Development of a new craving index for anticipating quitting smoking in patients who undergo the Japanese smoking cessation therapy. *Tob Induc Dis*, 17, 89. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31892919>

de Granda-Orive, JI, Pascual-Lledo, JF, Asensio-Sanchez, S, Solano-Reina, S, Garcia-Rueda, M, Martinez-Muniz, MA et al. (2019). Fagerstrom Test and Heaviness Smoking Index. Are they Interchangeable as a Dependence Test for Nicotine? *Subst Use Misuse*, 1-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31519135>

Dugas, EN, Sylvestre, MP, Wellman, RJ, Winickoff, J, Montreuil, A, & O'Loughlin, J. (2019). Measures of nicotine dependence enhance interpretation of number of cigarettes smoked in youth smoking surveillance. *Drug Alcohol Depend*, 204, 107534. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31493751>

Mushtaq, N, Huque, R, Beebe, LA, Shah, S, & Siddiqi, K. (2019). Evaluation of tobacco dependence measures in South Asian smokeless tobacco users. *Drug Alcohol Depend*, 203, 66-71. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31404851>

Grigsby, TJ. (2019). Development and psychometric properties of the tobacco and nicotine consequences scale (TANCS) to screen for cigarette and e-cigarette misuse in community settings. *Addict Behav*, 98, 106058. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31330469>

Houston-Ludlam, A. N., Bucholz, K. K., Grant, J. D., Waldron, M., Madden, P. A. F., & Heath, A. C. (2019). The interaction of sociodemographic risk factors and measures of nicotine dependence in predicting maternal smoking during pregnancy. *Drug Alcohol Depend*, 198, 168-175. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30939374>

Senyurek, V, Imtiaz, M, Belsare, P, Tiffany, S, & Sazonov, E. Cigarette Smoking Detection with An Inertial Sensor and A Smart Lighter. *Sensors (Basel)*, 2019, 19(3). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30700056>

van Amsterdam, J, Vorspan, F, Snijder, MB, van den Brink, W, Schene, AH, Stronks, K et al. Use of the Fagerstrom test to assess differences in the degree of nicotine dependence in smokers from five ethnic groups: The HELIUS study. *Drug Alcohol Depend*, 2018; 194, 197-204. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30447512>

Weinrauch LA and D'Elia JA. Is skipping breakfast a marker for current smoking? *J Am Coll Cardiol*, 2018; 71(6):707-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29420972>

Goodwin RD, Wall MM, Gbedemah M, Hu M-C, Weinberger AH, et al. Trends in cigarette consumption and time to first cigarette on awakening from 2002 to 2015 in the USA: New insights into the ongoing tobacco epidemic. *Tobacco Control*, 2018; 27(4):379-84. Available from: <http://tobaccocontrol.bmj.com/content/tobaccocontrol/27/4/379.full.pdf>

Germeroth LJ, Baker NL, and Saladin ME. Intolerance for smoking abstinence among nicotine-deprived, treatment-seeking smokers. *Addict Behav*, 2018; 84:13-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29597136>

Svicher A, Cosci F, Giannini M, Pistelli F, and Fagerstrom K. Item response theory analysis of fagerstrom test for cigarette dependence. *Addict Behav*, 2017; 77:38-46. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28950117>

Strong DR, Pearson J, Ehlke S, Kirchner T, Abrams D, et al. Indicators of dependence for different types of tobacco product users: Descriptive findings from wave 1 (2013-2014) of the population assessment of Tobacco and Health (path) study. *Drug Alcohol Depend*, 2017; 178:257-66. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28675817>

Prokhorov AV, Khalil GE, Foster DW, Marani SK, Guindani M, et al. Testing the nicotine dependence measure mFTQ for adolescent smokers: A multinational investigation. *Am J Addict*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28708935>

Mushtaq N and Beebe LA. Evaluating the role of smokeless tobacco use indices as brief measures of dependence. *Addict Behav*, 2017; 69:87-92. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28214708>

Moreno-Coutino A and Villalobos-Gallegos L. Psychometric properties of the fagerstrom test for nicotine dependence in a sample of mexican smokers. *J Addict Nurs*, 2017; 28(1):27-33. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28252508>

Jain R, Quraishi R, and Verma A. Evaluation of dried urine spot method to screen cotinine among Tobacco dependents: An exploratory study. *Indian J Psychol Med*, 2017; 39(4):469-74. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28852242>

Van Overmeire IP, De Smedt T, Dendale P, Nackaerts K, Vanacker H, et al. Nicotine dependence and urinary nicotine, cotinine and hydroxycotinine levels in daily smokers. *Nicotine Tob Res*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27083213>

Edelen MO, Huang W, and Stucky BD. Additional validity evidence for the promis smoking assessment toolkit. *Addict Behav*, 2016; 58:80-4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26914264>

Allenby CE, Boylan KA, Lerman C, and Falcone M. Precision medicine for Tobacco dependence: Development and validation of the nicotine metabolite ratio. *J Neuroimmune Pharmacol*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26872457>

Wellman RJ, Edelen MO, and DiFranza JR. Item response theory analysis of the autonomy over Tobacco scale (autos). *Addict Behav*, 2015; 45C:195-200. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/25697726>

Stucky BD, Huang W, and Edelen MO. The psychometric performance of the promis smoking assessment toolkit: Comparisons of real-data computer adaptive tests, short forms, and mode of administration. *Nicotine Tob Res*, 2015. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/25854962>

Strong DR, Messer K, Hartman SJ, Conway KP, Hoffman AC, et al. Measurement of multiple nicotine dependence domains among cigarette, non-cigarette and poly-tobacco users: Insights from item response theory. *Drug Alcohol Depend*, 2015; 152:185-93. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/26005043>

Rydell M, Sundin E, Ramstedt M, and Galanti MR. Measuring tobacco dependence in the general population: Evaluation of the cigarette dependence scale (cds-12) and its adaptation to smokeless tobacco use (stds-12) in two Swedish surveys. *Scand J Public Health*, 2015. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/26487763>

Mushtaq N and Beebe LA. Assessment of the Tobacco dependence screener among smokeless Tobacco users. *Nicotine Tob Res*, 2015. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/26718743>

Li H, Zhou Y, Li S, Wang Q, Pan L, et al. The relationship between nicotine dependence and age among current smokers. *Iranian Journal of Public Health*, 2015; 44(4):495-500. Available from:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441962/>

<http://www.ncbi.nlm.nih.gov/pubmed/26056668>

Fagan P, Pohkrel P, Herzog T, Pagano I, Vallone D, et al. Comparisons of three nicotine dependence scales in a multiethnic sample of young adult menthol and non-menthol smokers. *Drug Alcohol Depend*, 2015; 149:203-11. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25744873>

Denis C, Fatseas M, Beltran V, Serre F, Alexandre J, et al. Usefulness and validity of the modified addiction severity index: A focus on alcohol, drugs, tobacco and gambling. *Substance Abuse*, 2015:0. Available from:

http://www.tandfonline.com/doi/abs/10.1080/08897077.2015.1036334?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed&#.Vezq_Msw-Uk

<http://www.ncbi.nlm.nih.gov/pubmed/26110463>

Cosgrove KP, Esterlis I, Sandiego C, Petrulli R, and Morris ED. Imaging Tobacco smoking with pet and spect. *Curr Top Behav Neurosci*, 2015; 24:1-17. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/25638332>

Berlin I, Singleton EG, and Heishman SJ. A comparison of the fagerstrom test for cigarette dependence and cigarette dependence scale in a treatment-seeking sample of pregnant smokers. Nicotine Tob Res, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25995159>

Belmonte Cortes S, Serrano Zarceno C, and Granado de la Orden S. Methodology for the estimation of use of tobacco, alcohol and other drugs. Nutr Hosp, 2015; 31(s03):257-64. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25719793>

Aj NH and Gam LH. Identification of urinary protein biomarkers for Tobacco smoking. Biotechnol Appl Biochem, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25640279>

Adkison SE, Rees VW, Bansal-Travers M, Hatsukami DK, and O'Connor RJ. Psychometric characteristics of the brief Wisconsin Inventory of Smoking Dependence Motives among a non-clinical sample of smokers. Nicotine Tob Res, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26014451>

Scheuermann TS, Nollen NL, Cox LS, Reitzel LR, Berg CJ, et al. Smoking dependence across the levels of cigarette smoking in a multiethnic sample. Addict Behav, 2014; 43C:1-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25498030>

Rodu B, Plurphanswat N, and Fagerstrom K. Time to first use among daily smokers and smokeless Tobacco users. Nicotine Tob Res, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25358658>

Pariyadath V, Stein EA, and Ross TJ. Machine learning classification of resting state functional connectivity predicts smoking status. Front Hum Neurosci, 2014; 8:425. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24982629>

Pancani L, D'Addario M, Cappelletti ER, Greco A, Monzani D, et al. Smoking behavior: A cross-sectional study to assess the dimensionality of the brief Wisconsin Inventory of Smoking Dependence Motives and identify different typologies among young daily smokers. Nicotine Tob Res, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25168033>

Mathew AR, Wahlquist AE, Garrett-Mayer E, Gray KM, Saladin ME, et al. Affective motives for smoking among early stage smokers. Nicotine Tob Res, 2014; 16(10):1387-93. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24924155>

Lanza ST, Piper ME, and Shiffman S. New methods for advancing research on tobacco dependence using ecological momentary assessments. Nicotine Tob Res, 2014; 16 Suppl 2:S71-2. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24711628>

Lam E, Giovino GA, Shin M, Lee KA, Rolle I, et al. Relationship between frequency and intensity of cigarette smoking and ttfc/c among students of the gyts in select countries, 2007-2009. J Sch Health, 2014; 84(9):549-58. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25117888>

Jain RB. Trends in serum cotinine concentrations among daily cigarette smokers: Data from nhanes 1999-2010. Sci Total Environ, 2014; 472:72-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24291557>

Grassi MC, Ferketich AK, Enea D, Culasso F, and Nencini P. Validity of the Italian version of the severity of dependence scale (sds) for nicotine dependence in smokers intending to quit. *Psychol Rep*, 2014; 114(1):1-13. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24765705>

Frost-Pineda K, Muhammad-Kah R, Rimmer L, and Liang Q. Predictors, indicators, and validated measures of dependence in menthol smokers. *Journal of Addictive Diseases*, 2014; 33(2):94-113. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24738914>

Fabritius M, Favrat B, Chtioui H, Battistella G, Annoni JM, et al. Thccoh concentrations in whole blood: Are they useful in discriminating occasional from heavy smokers? *Drug Test Anal*, 2014; 6(1-2):155-63. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24173827>

Edelen MO, Tucker JS, Shadel WG, Stucky BD, Cerully J, et al. Development of the promis health expectancies of smoking item banks. *Nicotine Tob Res*, 2014; 16 Suppl 3:S223-31. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25118229>

Edelen MO, Stucky BD, Hansen M, Tucker JS, Shadel WG, et al. The promis smoking initiative: Initial validity evidence for six new smoking item banks. *Nicotine Tob Res*, 2014; 16 Suppl 3:S250-60. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25118232>

Edelen MO. The promis smoking assessment toolkit--background and introduction to supplement. *Nicotine Tob Res*, 2014; 16 Suppl 3:S170-4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25118225>

Cropsey KL, Trent LR, Clark CB, Stevens EN, Lahti AC, et al. How low should you go? Determining the optimal cutoff for exhaled carbon monoxide to confirm smoking abstinence when using cotinine as reference. *Nicotine Tob Res*, 2014; 16(10):1348-55. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24891552>

Antunes MV, da Silva CF, Finger MA, Moore C, and Linden R. Correlation analysis between cotinine hair concentrations from active smokers and nicotine intake and dependence. *Ther Drug Monit*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25254413>

John G, Pasche S, Rothen N, Charmoy A, Delhumeau-Cartier C, et al. Tobacco-stained fingers: A clue for smoking-related disease or harmful alcohol use? A case-control study. *BMJ Open*, 2013; 3(11):e003304. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24202054>

DiFranza JR, Savageau JA, and Wellman RJ. A comparison of the autonomy over Tobacco scale and the Fagerström test for nicotine dependence. *Addictive Behaviors*, 2012; 37(7):856-61. Available from: <http://www.sciencedirect.com/science/article/pii/S0306460312001141>

West R and Ussher M. Is the ten-item questionnaire of smoking urges (qsu-brief) more sensitive to abstinence than shorter craving measures? *Psychopharmacology*, 2010; 208(3):427-32. Available from: <https://commerce.metapress.com/content/k8208j2wn7265758/resource-secured/?target=fulltext.html&sid=tb0ezh55ru0npiiamtgvt55&sh=www.springerlink.com>

Sirota AD, Rohsenow DJ, MacKinnon SV, Martin RA, Eaton CA, et al. Intolerance for smoking abstinence questionnaire: Psychometric properties and relationship to tobacco dependence and abstinence. *Addictive Behaviors*, 2010; 35(7):386-93. Available from: http://www.sciencedirect.com/science?_ob=ArticleListURL&_method=list&_ArticleListID=12527192

[96&_sort=r&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=ba31c4d3eedeb1a37ca28ca1431e349a](#)

Saha T, Compton W, Pulay A, Stinson F, Ruan W, et al. Dimensionality of DSM-IV nicotine dependence in a national sample: An item response theory application. *Drug and Alcohol Dependence*, 2010; 108(1-2):21-8. Available from:
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20045597

Rose J and Dierker L. DSM-IV nicotine dependence symptom characteristics for recent-onset smokers. *Nicotine and Tobacco Research*, 2010; 12(3):278-86. Available from:
<http://ntr.oxfordjournals.org/cgi/content/full/ntp210v1>

Piasecki T, Piper M, and Baker T. Refining the tobacco dependence phenotype using the Wisconsin Inventory of Smoking Dependence Motives: II. Evidence from a laboratory self-administration assay. *Journal of Abnormal Psychology*, 2010; 119(3):513–23. Available from:
<http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=2010-15289-007>

McBride O, Strong D, and Kahler C. Exploring the role of a nicotine quantity-frequency use criterion in the classification of nicotine dependence and the stability of a nicotine dependence continuum over time. *Nicotine and Tobacco Research*, 2010; 12(3):207-16. Available from:
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20081041

Kawada T, Hirata K, Inagaki H, Otsuka T, and Katsumata M. Significance of the 100-point scale to evaluate perceived tobacco dependence. *Work: A Journal of Prevention, Assessment and Rehabilitation*, 2010; 35(2):183–9. Available from:
<https://commerce.metapress.com/content/31259tw45022153t/resource-secured/?target=fulltext.html&sid=3bi3lj553bfzawzivgcrpaad&sh=ioppress.metapress.com>

Kapusta N, Pietschnig J, Plener P, Bluml V, Lesch O, et al. Does breath carbon monoxide measure nicotine dependence? *Journal of Addictive Diseases*, 2010; 29(4):493–9. Available from:
<http://www.informaworld.com/smpp/ftinterface~content=a927630212~fulltext=713240928~frm=content>

Hitsman B, Shen B, Cohen R, Morissette S, Drobis D, et al. Measuring smoking-related preoccupation and compulsive drive: Evaluation of the obsessive compulsive smoking scale. *Psychopharmacology*, 2010; 21(4):377-87. Available from:
<http://www.springerlink.com/content/d22n05n751133p17/fulltext.pdf>

Fidler JA, Shahab L, and West R. Strength of urges to smoke as a measure of severity of cigarette dependence: Comparison with the fagerstrom test for nicotine dependence and its components. *Addiction*, 2010; [Epub ahead of print]. Available from:
<http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2010.03226.x/pdf>

Doubeni C, Reed G, and Difranza J. Early course of nicotine dependence in adolescent smokers. *Pediatrics*, 2010; 125(6):1127-33. Available from:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3079339/>

Difranza J, Ursprung W, Lauzon B, Bancej C, Wellman R, et al. A systematic review of the diagnostic and statistical manual diagnostic criteria for nicotine dependence. *Addictive Behaviors*, 2010;

35(5):373-8. Available from:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=20056335

DiFranza J. A new approach to the diagnosis of tobacco addiction. *Addiction*, 2010; 105(3):381–2.

Available from: <http://www3.interscience.wiley.com/cgi-bin/fulltext/123275726/HTMLSTART>

Yoon J, Higgins S, Bradstreet M, Badger G, and Thomas C. Changes in the relative reinforcing effects of cigarette smoking as a function of initial abstinence. *Psychopharmacology*, 2009; 205(2):305-18.

Available from: <http://www.springerlink.com/content/9306133gg2066w67/fulltext.html>

Riemerth A, Kunze U, and Groman E. Nocturnal sleep-disturbing nicotine craving and accomplishment with a smoking cessation program. *Wiener Medizinische Wochenschrift* (1946), 2009; 159(1–2):47–52. Available from: <http://www.springerlink.com/content/a7h83qh020783020/>

Perkins KA. Cues must increase smoking behaviour to be clinically relevant. *Addiction*, 2009; Epub ahead of print. Available from: <http://www3.interscience.wiley.com/journal/122466976/abstract>

Perkins K, Grottenthaler A, and Wilson A. Lack of reinforcement enhancing effects of nicotine in non-dependent smokers. *Psychopharmacology*, 2009; 205(4):635-45. Available from: <http://www.springerlink.com/content/n378411541142780/fulltext.pdf>

Perez-Rios M, Santiago-Perez M, Alonso B, Malvar A, Hervada X, et al. Fagerstrom test for nicotine dependence vs heavy smoking index in a general population survey. *BMC Public Health*, 2009; 9:493. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2809067/?tool=pubmed>

Otani T, Yoshii C, Kano M, Kitada M, Inagaki K, et al. Validity and reliability of kano test for social nicotine dependence. *Annals of Epidemiology*, 2009; 19(11):815-22. Available from: www.ncbi.nlm.nih.gov/pubmed/19457683

Muscat J, Stellman S, Caraballo R, and Richie J, Jr. Time to first cigarette after waking predicts cotinine levels. *Cancer Epidemiology, Biomarkers & Prevention*, 2009; 18(12):3415–20. Available from: <http://cebp.aacrjournals.org/content/18/12/3415.long>

Meneses-Gaya I, Zuardi A, Loureiro S, and Crippa J. Psychometric properties of the Fagerström test for nicotine dependence. *Jornal Brasileiro de Pneumologia*, 2009; 35(1):73–82. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1806-37132009000100011&lng=en&nrm=iso&tIIng=en

Kandel D, Hu M, and Yamaguchi K. Sequencing of DSM-IV criteria of nicotine dependence. *Addiction*, 2009; 104(8):1393-402. Available from:

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=19489755

Jerome LW, Jordan PJ, Rodericks R, and Fedenczuk L. Psychophysiological arousal and craving in smokers, deprived smokers, former smokers, and non-smokers. *Studies in Health Technology and Informatics*, 2009; 144:179–83. Available from:

<http://booksonline.iospress.nl/Content/View.aspx?piid=12264>

Japuntich S, Piper M, Schlam T, Bolt D, and Baker T. Do smokers know what we're talking about? The construct validity of nicotine dependence questionnaire measures. *Psychological Assessment*, 2009;

21(4):595–607. Available from: <http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=2009-22537-013&CFID=26718714&CFTOKEN=31347637>

Grainge M, Shahab L, Hammond D, O' Connor R, and McNeill A. First cigarette on waking and time of day as predictors of puffing behaviour in UK adult smokers. *Drug and Alcohol Dependence*, 2009; 101(3):191-5. Available from: <http://www.sciencedirect.com/science/journal/03768716>

Fu M, Martinez-Sanchez J, Perez-Rios M, Lopez M, and Fernandez E. A comparison of the fagerstrom test for nicotine dependence and smoking prevalence across countries: Updated data from spain. *Addiction*, 2009; 104(2):326–7. Available from: <http://www3.interscience.wiley.com/user/accessdenied?ID=121639212&Act=2138&Code=4719&Page=/cgi-bin/fulltext/121639212/HTMLSTART>

DiFranza J, Wellman R, Ursprung W, and Sabiston C. The autonomy over smoking scale. *Psychology of Addictive Behaviors*, 2009; 23(4):656–65. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/20025371>

Toll BA, Cooney JL, McKee SA, O'Malley SS, and Cooney NL. Correspondence of interactive voice response (ivr) reports of nicotine withdrawal, craving, and negative mood with questionnaire ratings. *Nicotine and Tobacco Research*, 2008; 10(6):1057–64. Available from: <http://www.informaworld.com/smpp/content~content=a794493163~db=all~order=page>

Scharf D, Dunbar M, and Shiffman S. Smoking during the night: Prevalence and smoker characteristics. *Nicotine and Tobacco Research*, 2008; 10(1):167–78. Available from: <http://www.informaworld.com/smpp/content~db=all?content=10.1080/14622200701767787>

Sayette MA, Loewenstein G, Griffin KM, and Black JJ. Exploring the cold-to-hot empathy gap in smokers. *Psychological Science*, 2008; 19(9):926–32. Available from: <http://www3.interscience.wiley.com/journal/121433740/abstract>

Piper M, McCarthy D, Bolt D, Smith S, Lerman C, et al. Assessing dimensions of nicotine dependence: An evaluation of the Nicotine Dependence Syndrome Scale (NDSS) and the Wisconsin Inventory of Smoking Dependence Motives (WISDM). *Nicotine and Tobacco Research*, 2008; 10(6):1009–20. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2614360/>

Piper M, Bolt D, Kim S, Japuntich S, Smith S, et al. Refining the tobacco dependence phenotype using the Wisconsin Inventory of Smoking Dependence Motives. *Journal of Abnormal Psychology*, 2008; 117(4):747–61. Available from: <http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=2008-16252-003>

Hendricks P, Prochaska J, Humfleet G, and Hall S. Evaluating the validities of different DSM-IV-based conceptual constructs of tobacco dependence. *Addiction*, 2008; 103(7):1215–23. Available from: <http://www3.interscience.wiley.com/journal/120090551/abstract>

Fulton H and Barrett S. A demonstration of intravenous nicotine self-administration in humans? *Neuropsychopharmacology*, 2008; 33(8):2042–3. Available from: <http://www.nature.com/npp/journal/v33/n8/abs/1301545a.html;jsessionid=5460E0F532E5AD0C3391FC63471263A8>

Piper M, McCarthy D, and Baker T. Assessing tobacco dependence: A guide to measure evaluation and selection. Nicotine and Tobacco Research, 2006; 8(3):339-51. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/16801292>

Wellman R, DiFranza J, Savageau J, Godiwala S, Friedman K, et al. Measuring adults' loss of autonomy over nicotine use: The Hooked on Nicotine Checklist. Nicotine and Tobacco Research, 2005; 7(1):157-61. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15804688>

Kandel D, Schaffran C, Griesler P, Samuolis J, Davies M, et al. On the measurement of nicotine dependence in adolescence: Comparisons of the mFTQ and a DSM-IV-based scale. Journal of Pediatric Psychology, 2005; 30(319-32). Available from:
<http://jpepsy.oxfordjournals.org/cgi/content/abstract/30/4/319>

Shiffman S, Waters A, and Hickcox M. The Nicotine Dependence Syndrome Scale: A multidimensional measure of nicotine dependence. Nicotine and Tobacco Research, 2004; 6(2):327-49. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/15203807>

Piper M, Federman E, Piasecki T, Bolt D, Smith S, et al. A multiple motives approach to tobacco dependence: The Wisconsin Inventory of Smoking Dependence Motives (WISDM-68). Journal of Consulting and Clinical Psychology, 2004; 72(2):139-54. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/15065950>

Etter J, Le Houezec J, and Perneger T. A self-administered questionnaire to measure dependence on cigarettes: The cigarette dependence scale. Neuropsychopharmacology, 2003; 28(2):359-70. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12589389>

DiFranza JR, Savageau JA, Rigotti NA, Fletcher K, Ockene JK, et al. Development of symptoms of tobacco dependence in youths: 30 month follow up data from the DANDY study. Tobacco Control, 2002; 11(3):228-35. Available from: <http://tc.bmjjournals.com/cgi/content/abstract/11/3/228>

DiFranza JR, Savageau JA, Fletcher K, Ockene JK, Rigotti NA, et al. Measuring the loss of autonomy over nicotine use in adolescents: The DANDY (Development and Assessment of Nicotine Dependence in Youths) study. Archives of Pediatrics and Adolescent Medicine, 2002; 156(4):397-403. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/11929376>

Okuyemi KS, Ahluwalia JS, and Wadland WC. The evaluation and treatment of tobacco use disorder. The Journal of Family Practice, 2001; 50(11):981-7. Available from:
<http://www.jfponline.com/Pages.asp?AID=2365>

Kandel D and Chen K. Extent of smoking and nicotine dependence in the United States: 1991-1993. Nicotine and Tobacco Research, 2000; 2(3):263-74. Available from:
<http://www.ncbi.nlm.nih.gov/pubmed/11082827>

Haddock CK, Lando H, Klesges RC, Talcott GW, and Renaud EA. A study of the psychometric and predictive properties of the Fagerström test for nicotine dependence in a population of young smokers. Nicotine and Tobacco Research, 1999; 1(1):59-66. Available from:
<https://www.ncbi.nlm.nih.gov/pubmed/11072389>

American Psychiatric Association, *Diagnostic and statistical manual of mental disorders fourth edition - text revision (dsmiv-tr)*. 4th Edition ed Washington DC: American Psychiatric Association; 1994. Available from: <http://allpsych.com/disorders/dsm.html>.

Heatherton T, Kozlowski L, Frecker R, and Fagerström K. The Fagerström test for nicotine dependence: A revision of the Fagerström tolerance questionnaire. British Journal of Addiction, 1991; 86(9):1119-27. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/1932883>

Fagerstrom K. Measuring degree of physical dependence to tobacco smoking with reference to individualization of treatment. Addictive Behaviors, 1978; 3(3-4):235-41. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/735910>

News reports:

No authors listed. New report: First compilation of global addictions Medical News Today, 2015. Available from: <http://www.medicalnewstoday.com/releases/293769.php?tw>