

ABCD Human Subject Study

Adolescent Brain Cognitive Development – ABCDSTUDY.org

Release Notes: Adolescent Brain Cognitive Development Study (ABCD) Data Release 2.0

Substance Use

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General Information

The following information refers to the Adolescent Brain Cognitive Development (ABCD) Study Data Release 2.0 available from <https://data-archive.nimh.nih.gov/abcd>. An overview of the ABCD Study is at <https://abcdstudy.org> and detailed descriptions of elements of the study are listed in <https://abcdstudy.org/scientists/protocols>.

This document describes the contents of various instruments available for download. To understand the context of this information, see *Release Notes ABCD README FIRST* and *Release Notes ABCD Imaging Instruments*.

To access additional detailed information about the instruments administered in this domain, the constructs they are intended to measure and relevant citations for each measure, please see: <https://www.ncbi.nlm.nih.gov/pubmed/29559216>

ABCD Parental Rules on Substance Use: Parental substance use approval and rules.

ABCD Parent Community Risk and Protective Factors (CRPF): Questions regarding perceived availability (Arthur, Briney, Hawkins, Abbott, Brooke-Weiss, & Catalano, 2007; Trentacosta, Criss, Shaw, Lacourse, Hyde & Dishion, 2011).

ABCD Youth Participant Last Use Survey Day 1 2 3 4 (PLUS): Measures recent OTC, nicotine, caffeine use just prior to neurocognitive tasks or MRI. Will help control for withdrawal effects.

ABCD Parent Participant Last Use Survey Day 2 3 4 (PLUS): Measures recent OTC, nicotine, caffeine use just prior to neurocognitive tasks or MRI. Will help control for withdrawal effects.

ABCD Youth Substance Use Interview: Data from this module will provide information in the following domains: 1) lifetime and recent quantity/frequency and patterns of substance use (including maximum dose, first use, first regular use, days of combined drug use) of all major drug categories (alcohol, nicotine, marijuana, caffeine, stimulants, ecstasy, depressants/sedatives, opiates, hallucinogens, steroids, and inhalants) with a timeline follow back and first-use assessment (first sip, first puff nicotine/ marijuana); 2) peer group substance use; 3) substance use attitudes, including intentions to use, perceived harm (added at 1-year follow-up), peer tolerance (added at 1-year follow-up), and expectancies of substance use (added at 1-year follow-up); 4) subjective response to substance use (alcohol, nicotine, marijuana); and 5) consequences of substance use, including alcohol hangover symptoms,

alcohol consequences (RAPI), nicotine consequences (PATH Nicotine Dependence), marijuana consequences (MAPI), and other drug consequences (DAPI).

Timeline Follow-back (Lifetime): At baseline, this will establish whether someone ever used alcohol or drugs (sip, puff, or full use). The TLFB method is used to obtain specific quantitative estimates of drug use over a period of time. (Sobell & Sobell, 1996). - See more at: http://www.nova.edu/gsc/online_files.html#time_followback

Alcohol Low Level Use (iSip): Nine questions assess participants' earliest sipping experience (including when, context, what type of alcohol) and whether or not a full drink was consumed (items adapted from a survey developed by Jackson, Barnett, Colby, & Rogers, 2015).

Nicotine Low Level Use: Ten questions assess first low-level experiences with nicotine products including (e.g., first puff of a combustible cigarette or e-cigarette, first dip of smokeless tobacco), type of nicotine product, where and when this occurred, and whether it led to further use (adapted from alcohol sipping measure).

Cannabis Low Level Use: Eight questions assess first low-level experiences with cannabis products including initial experiences with cannabis (first puff or taste of marijuana), where they obtained the substance, when these experiences occurred, whether it led to further use and subjective experience of feeling "high" (adapted from alcohol sipping measure).

Timeline Follow-back (Continued): At baseline, measures when they first used it, first regular (weekly) use, lifetime quantity (in standard doses), maximum dose (standard), last date of use, and past 6-month quantity/frequency of each drug category. This results in data re: patterns (e.g., max recent use, days of combined use, average dose per occasion, # of binge drinking episodes, drinks/binge, etc.)

Caffeine Intake: Measures quantity/frequency of various caffeine beverage use in past 6 months.

Peer Tolerance of Use (added at 1-year follow-up): Measure of how youth believes their close friends would feel about them engaging in substance use behaviors, including drinking, smoking, using e-cigarettes, marijuana use, nonmedical use of prescription drugs, and "other drug" use. Modified from Monitoring the Future form (University of Michigan, Institute for Social Research, Survey Research Center. United States Department of Health and Human Services. National Institutes of Health. National Institute on Drug Abuse. 2009. Monitoring the Future: A continuing study of American youth. Ann Arbor, MI).

Peer Group Deviance: Measures friends' use of alcohol, nicotine, marijuana, inhalants, and "other" drugs (Freedman, Thornton, Camburn, Alwin & Young-demarco, 1988).

PATH Inventory, Intention to Use: Measures the youth's intention to use alcohol, nicotine and marijuana (Pierce, Choi, Gilpin, Farkas, & Merritt, 1996; Strong, Hartman, Nodora, Messer, James, White, et al., 2015).

Perceived Harm of Substances (added at 1-year follow-up): Measure of youth's opinion regarding how much people risk harming themselves (physically or in other ways) if they engage in various substance use behaviors, including drinking, smoking, using e-cigarettes, marijuana use, nonmedical use of prescription drugs, and "other drug" use. Modified from Monitoring the Future form (University of Michigan, Institute for Social Research, Survey Research Center. United States Department of Health and Human Services. National Institutes of Health. National Institute on Drug Abuse. 2009. Monitoring the Future: A continuing study of American youth. Ann Arbor, MI).

Alcohol Expectancies Questionnaire – Adolescent, Brief (AEQ-AB) (added at 1-year follow-up): Measures thoughts, feelings and beliefs about effects of alcohol use. Asked if "heard of" alcohol. The AEQ-AB was designed as a brief version of Alcohol Expectancy Questionnaire-Adolescent (Brown, Christiansen and Goldman, 1987; Greenbaum, Brown and Friedman, 1995). This 7-item instrument is intended for use among clinicians to assess and test alcohol expectancy effects (Stein, Katz, Colby, Barnett, Golembeske, Lebeau-Craven and Monti, 2006).

Adolescent Smoking Consequences Questionnaire (ASCQ) – Modified (added at 1-year follow-up): Measures thoughts, feelings and beliefs about the effects of cigarettes. Asked if "heard of" tobacco (Lewis-Esquerre, Rodrigue & Kahler, 2005)

Marijuana Effect Expectancy Questionnaire-Brief (MEEQ-B) (added at 1-year follow-up): Measures thoughts, feelings and beliefs about effects of marijuana. Asked if "heard of" marijuana (Torrealday, Stein, Barnett, Golembeske, Lebeau, Colby & Monti, 2008).

Acute Subjective Response to Alcohol: From the Self-Rating of the Effects of Alcohol (SRE): asks the respondent to think back about their drinking and to list the number of standard drinks required to experience the effects of alcohol; the first 5 times of drinking, the past 3 months of regular drinking, and the period of heaviest drinking are queried. (Schuckit, Smith, & Tipp, 1997).

Acute Subjective Response to Tobacco: Assesses early response to tobacco smoking, and it may also be used for marijuana smoking. Seven items inquire about pleasant and unpleasant experiences and ask respondents if they encountered various effects while smoking a tobacco cigarette for the first time (Pomerleau, Pomerleau, & Namenek, 1998).

Acute Subjective Response to Marijuana: Assesses early response to marijuana smoking. Eleven items inquire about pleasant and unpleasant experiences and ask respondents if they encountered various effects while using marijuana for the first time (Agrawal, Madden, Martin & Lynskey, 2013; Agrawal, Madden, Martin & Lynskey, 2013).

Hangover Symptom Scale: Measures frequency of hangover symptoms over the last 6 months. HSS queries 13 hangover symptoms that are manifestations of toxic neurologic effects, measured on a scale ranging from never to 100% of drinking occasions (Slutske, Piasecki, & Hunt-Carter, 2003).

Rutgers Alcohol Problem Index (RAPI): Symptom frequency checklist of alcohol-related problems over past 6 months. RAPI queries how many times in the last year the participant has felt certain consequences for drinking alcohol (White, H.R. & Labouvie, E.W. 1989). See more at: <http://research.alcoholstudies.rutgers.edu/rapi#sthash.DSOTYpnd.dpuf>.

PATH Nicotine Dependence: Symptom frequency checklist of nicotine-related problems over past 6 months (Pomerleau, O. F., Pomerleau, C. S., Nameneck, R. J., 1998; Prokhorov, A.V., Pallonen, U.E., Fava, J.L., Ding, L., & Niaura, R. 1996).

Marijuana Dependence Index (MAPI): Symptom frequency checklist of marijuana-related problems over past 6 months. MAPI (adapted from the RAPI) queries the frequency of physiological and psychological consequences of marijuana use (Johnson & White, 1989; Simons, Coreia, Carey & Bursar, 1998).

Drug Problem Index (DAPI): Symptom frequency checklist of “other” drug-related problems over past 6 months (Adapted from MAPI).

ABCD Youth Alcohol Screen: Past day alcohol use - Breathalyzer

ABCD Youth Toxicology Test: Past day drug use - Oral Fluid Draeger

ABCD Youth Hair Sample: Information collected by RAs at the time of collecting ~100 strands of hair for metabolites indicating substance use in past month or longer.

ABCD Mid-Year Phone Interview (MYPI) – Substance Use: At 6-month and 18-month follow-up, youth are asked a series of Yes/No questions over the phone about their substance use over the past 6 months.

Summary Scores – Caffeine summary scores can be found in the **ABCD Summary Scores Substance Use** Instrument.

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