

# ABCD Human Subject Study

Adolescent Brain Cognitive Development – ABCDSTUDY.org

## Release Notes: Adolescent Brain Cognitive Development Study<sup>SM</sup> (ABCD Study<sup>®</sup>) Data Release 4.0

### Culture and Environment

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October 2021

#### Change Log

October 2021 – Data Release 4.0

- Initial release

Data from this module will provide information across nine domains that span the home, school, and neighborhood environment, individual resilience factors, and cultural factors.

### List of Instruments

Name of Instrument	Short Name
Youth Prosocial Behavior Survey	abcd_psb01
ABCD Youth Acculturation Survey Modified from PhenX*	yacc01
ABCD Children's Report of Parental Behavioral Inventory	crpbi01
ABCD Youth Family Environment Scale-Family Conflict Subscale Modified from PhenX	abcd_fes02
ABCD Youth Neighborhood Safety/Crime Survey Modified from PhenX	abcd_nsc01
ABCD Youth Mexican American Cultural Values Scale	abcd_macvsy01
ABCD Peer Behavior Profile: Prosocial & Delinquent Peer Involvement	abcd_pbp01

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<b>ABCD Parental Monitoring Survey</b>	pmq01
<b>ABCD School Risk and Protective Factors Survey</b>	srpf01
<b>Wills Problem Solving Scale</b>	abcd_ywpss01
<b>ABCD Youth School Attendance of Youth and Grades</b>	abcd_ysaag01
<b>Perceived Discrimination Scale</b>	abcd_ydmes01
<b>ABCD Peer Network Health: Protective Scale</b>	abcd_pnhps01
<b>ABCD Parent Acculturation Survey Modified from PhenX*</b>	pacc01
<b>ABCD Parent Family Environment Scale-Family Conflict Subscale Modified from PhenX</b>	fes01
<b>ABCD Parent Neighborhood Safety/Crime Survey Modified from PhenX</b>	abcd_pnsc01
<b>ABCD Parent Community Cohesion from PhenX</b>	abcd_pxccp01
<b>ABCD Parent Vancouver Index of Acculturation-Short Survey</b>	abcd_via01
<b>ABCD Youth Vancouver Index of Acculturation-Short Survey</b>	vancouver_identity_accult01
<b>ABCD Parent Multi-Group Ethnic Identity-Revised Survey</b>	abcd_meim01
<b>ABCD Parent Mexican American Cultural Values Scale Modified</b>	macv01
<b>ABCD Parent School Attendance of Youth and Grades</b>	abcd_saag01
<b>Parent Prosocial Behavior Survey</b>	psb01
<b>ABCD Pet Ownership</b>	pet_ownership01
<b>ABCD Multidimensional Neglectful Behavior Scale</b>	neglectful_behavior01
<b>ABCD Sum Scores Culture &amp; Environment Youth</b>	abcd_sscey01
<b>ABCD Sum Scores Culture &amp; Environment Parent</b>	abcd_sscep01

## General Information

The following information refers to the Adolescent Brain Cognitive Development Study<sup>SM</sup> (ABCD) Data Release 4.0 available from <https://nda.nih.gov/abcd>. An overview of the ABCD Study<sup>®</sup> is at <https://abcdstudy.org> and detailed descriptions of the assessment protocols can be viewed at <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://doi.org/10.1016/j.dcn.2018.02.006>

## Instrument Descriptions

### **Prosocial Behavior Survey (Youth & Parent)**

The Prosocial Behaviors questionnaire is a subscale from the “Strengths and Difficulties Questionnaire” (Goodman et al., 1998). We use a shortened version of the “Prosocial Behavior” subscale from this instrument. The original subscale has 5 items. We have retained the three items with the highest factor loadings. The Prosocial Behavior subscale assesses tendency to engage in behaviors to help others. This measure is administered to both parent and youth. Parent reports on youth behavior, and youth reports on self.

### **ABCD Acculturation Survey Modified from PhenX (ACC)**

The Acculturation questionnaire is a subset of questions from the PhenX Acculturation protocol. These items aim at assessing level of participant acculturation – that is, the process by which an individual from one cultural group adapts and borrows traits and values from another culture – by assessing proficiency and preferences for speaking a given language in different settings. The PhenX items come from questions used by the National Latino and Asian American Study (NLAAS: Alegria et al., 2004), which were originally derived from the “Short Acculturation Scale for Hispanics” (Marin, Sabogal, and Marin, 1987). These questions are answered independently by youth and parent.

### **ABCD Children's Report of Parental Behavioral Inventory**

The Acceptance Scale is a subscale of the Child Report of Behavior Inventory (CRPBI; Schaefer, 1965; Schludermann & Schludermann, 1988; see also Barber et al., 1994; Barber & Olsen, 1997). We use a shortened version of the original scale which had 10 items. We kept the 5 items with the highest factor loadings. The acceptance subscale examines children's perceptions of caregiver warmth, acceptance, and responsiveness. The acceptance subscale can be reported on for any significant adult caregiver. First, the scale is answered for the “parent participant”, the adult who completes the parent surveys (variable names are labeled with “mom” below, even if this person is not the mother). Next, the survey should be answered for a second primary caregiver (variable names are labeled with “caregiver” below), a caregiver the child spends a significant amount of time with (e.g., other parent, step-parent, grandparent, aunt, uncle). If there is not a second primary caregiver, the child can skip the second administration of the questions.

### **ABCD Family Environment Scale-Family Conflict Subscale Modified from PhenX (FES)**

The Conflict subscale from the Family Environment Scale (FES; Moos & Moos, 1994) consist of 9 items assessing the amount of openly expressed conflict among family members. These questions are answered independently by youth and parent.

### **ABCD Family Environment Scale: Intellectual/Cultural, Active/Recreational, Organization, Cohesion, and Expressiveness Subscales adapted from PhenX (FES)**

Each of these additional subscales involves 9 items assessing the extent to which the family has an Intellectual-Cultural orientation, an Active-Recreational orientation, is Organized, is Supportive/Cohesive (Cohesion), and is Expressive in style. These subscales evaluate the three underlying dimensions of the family environment: Family Relationships, Personal Growth, and System Maintenance and Change, and have excellent external validity (Moos & Moos, 2009; Sanford, et al., 1999). These subscale items are answered by the parent starting in the two-year follow up.

### **ABCD Neighborhood Safety/Crime Survey Modified from PhenX (NSC)**

The Neighborhood Safety/Crime measures consist of one item from the “Neighborhood Safety Protocol” of the PhenX Toolkit. The original PhenX measure consists of three items assessing feelings about safety and presence of crime in the respondent’s neighborhood. Parents report on all three items. For the youth report, we retained the item thought to be most appropriate for our participants’ age range. The PhenX items were derived from “Safety from Crime” items from scales assessing neighborhood characteristics (Echeverria, Diez-Roux, & Link, 2004; Mujahid et al., 2007).

### **ABCD Peer Behavior Profile: Prosocial & Delinquent Peer Involvement**

The Youth Peer Behavior Profile consists of two 3-item self-rated subscales, the Prosocial Peer Involvement subscale and the Rule Breaking/Delinquent Peer Involvement subscale, that assess the extent to which the youth’s friendship network consists of (a) prosocial peers (e.g., friends who are excellent students, are athletes, etc.), and/or (b) rule breaking/delinquent peers (e.g., friends who skip school, shoplift, etc.); the two sub-scales are not mutually exclusive. The measure uses a subset of 8 items drawn from the 54 item Peer Behavior Profile/Peer Activities Questionnaire (Bingham, Fitzgerald & Zucker, 1995), which assesses degree of involvement with peers engaged in varying types of conventional, nonconventional, and rule-breaking behavior. Participants report what proportion (based on a five-point scale ranging from “none or almost none” to “all or nearly all”) of their peers are involved in these behaviors. Items were derivative from earlier measures assessing these kinds of social influence networks (Hirschi 1969; Jessor & Jessor, 1977; Zucker et al, 1994). This instrument was administered to youth starting in the two-year follow-up.

### **ABCD Parental Monitoring Survey**

The Parental Monitoring Survey is a subset of questions that assess a parent’s active efforts to keep track of a child’s whereabouts, both at home, and when they are not at home (e.g., who

they are with; what they are doing). This measure is derived from two other measures (i.e., Karoly, Callahan, Schmiede, & Feldstein Ewing, 2016; Statin & Kerr 2000).

### **ABCD School Risk and Protective Factors Survey**

The School Risk and Protective Factors (SRPF) Survey is from the PhenX School Risk and Protective Factors protocol. These items were derived from the “The Communities That Care (CTC) Youth Survey” (Arthur et al., 2007). Two items were cut due to redundancy across the battery (grade in school and skipping classes), and items were re-worded for age appropriateness. The SRPF examines youth’s perceptions of the school climate and school engagement and asks youth to report on school grades. Responses are used to derive three subscale scores: School Environment, School Involvement, and School Disengagement.

### **The Wills Problem Solving Scale**

This scale was derived from earlier coping measures (Wills, Health Psychology 1986) and has good internal consistency in studies with children and adolescents from a variety of populations (Wills et al., Health Psychology 2013). It taps a systematic behavioral approach to deal with problem situations through gathering information about the problem, considering alternative solutions to the problem, deciding about a plan of action, and implementing an active approach to do something to resolve the problem. Different usages of the scale have had 6-8 items; items with the highest correlation with early substance use were selected for this study.

**Summary Scores** can be found in the following instruments. Prefixes used in summary score variables are listed at the end of each instrument name.

### **ABCD School Attendance of Youth and Grades**

The School Attendance and Grade (SAG) parent measure about the youth's number of excused and unexcused school absences, grades, and participation in an Individualized Education Program (IEP). The youth measure asks about number of excused and unexcused school absences, and grades.

### **ABCD Perceived Discrimination Scale (PDS)**

In order to assess participant perceptions of experiencing ethnic (and other types of) discrimination, we selected and modified selected items from two existing scales: The 2006 Boston Youth Survey and the Measure of Perceived Discrimination (Phinney, Madden, and Santos, 1998). The first four items are from the 2006 Boston Youth Survey (Garnett, Masyn, Austin, Miller, Williams, and Viswanath, 2014) and query about being discriminated against due to race, ethnicity, color, country of origin, sexual identity, and body type during the past 12 months. The remaining seven items come from the Measure of Perceived Discrimination and query about frequency of being treated unfairly or negatively because of ethnic background by others, as well as general feelings of experiencing ethnic discrimination.

### **ABCD Peer Network Health: Protective Scale**

Youth report on three of their close friends' protective behaviors against substance use such as encouraging not using substances, or reducing use, and providing instrumental and psychological support.

### **ABCD Vancouver Index of Acculturation-Short Survey (VIA) – Youth & Parent**

The Vancouver Index of Acculturation (VIA) is a 20-item bi-dimensional measure developed to independently assess adherence to one's Heritage and Mainstream culture on separate subscales (Ryder, Alden, & Paulhus, 2000). We used the 16-item adaptation of the VIA, which consists of 8 paired items asking the same question for each culture. Heritage culture is solicited from a 96-item drop-down menu that reflects a broad range of ethnic/cultural backgrounds. The drop-down menu was developed based on open-ended responses from the first n~1000 participants at baseline. These open-ended responses were aggregated into a list of ethnic, cultural and religious backgrounds that was subsequently used for the remainder of the ABCD Study. Respondents are allowed to choose "other" and fill in a heritage not listed.

Recent changes have been made to ensure that the VIA is only administered to families for whom the acculturation concept is applicable, the scale will only be given to first, second or third generation immigrant families. Additionally, participants that do not identify with a family culture besides American culture (including African American respondents) will also not be administered the VIA. In an effort to maintain inclusivity, changes have been made to the language of VIA items so that items pertaining to the heritage culture subscale now refer to "family culture" whereas items pertaining to the American subscale now refer to "other American".

### **ABCD Parent Multi-Group Ethnic Identity-Revised Survey (MEIM)**

The Multi-Ethnic Identity Measure - Revised (MEIM-R) is a 6-item short-form that assesses ethnic identity (Phinney and Ong, 2007). It yields two subscales: Commitment and Exploration. Please note that in previously released ABCD data, lower values for summary scores indicated greater ethnic identity. This has since been recoded so that, **higher values** for summary score in the ABCD dataset **now** indicate **greater ethnic identity**.

### **ABCD Mexican American Cultural Values Scale Modified (MACV)**

The Cultural Values Scale is a subset of items derived from the Mexican American Cultural Values Scale (MACVS; Knight et al, 2010). The original measure consists of 50 items across 9 subscales reflecting values associated with Mexican/Mexican American and contemporary mainstream American beliefs, behaviors, and traditions. We have retained 5 of the original subscales (28 items) assessing Familism (Familism referent, Familism support, Familism obligation), Religion, and Independence/self-reliance that are applicable across numerous cultures, races, and ethnicities and are of relevance to substance use trajectories. This is applicable to all subjects (not just subjects of Mexican heritage). Parents complete all 5 subscales (28 items) while youth complete only the 3 subscales for Familism (16 items). The youth measure was collected starting at the two-year follow-up.

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### **ABCD School Attendance of Youth and Grades**

Description needed. Is the description same as parent measure? If so, we can combine the descriptions (as done with Acculturation). This is completed independently by the parent and youth.

### **ABCD Pet Ownership**

This single-item question was added to learn about current pet ownership among ABCD participants. Youth can endorse multiple selections among various types of animals listed or choose that they do not currently have a pet.

### **ABCD Multidimensional Neglectful Behavior Scale**

This 8-item scale was adapted from the “LONGSCAN About My Parents” measure (LONGSCAN investigators, 1998) to assess neglectful parental behaviors via youth self-report. The ABCD adaptation includes items with the highest factor loadings from the Monitoring Supervision subscale, as well as age-appropriate items from the Educational Support subscale. Items query how often parents met the youth’s needs in a variety of areas, in the last year. Responses range from “0 = never to 3 = a lot.” The measure yield one overall mean score, as well as two mean scores for each of the two subscales. The LONGSCAN measure was originally adapted from the Revised Neglectful Behavioral Scale (Dubowitz, et. al, 2011).

### **ABCD Sum Scores Culture & Environment Youth**

ABCD Parental Monitoring Survey (PMQ)  
Modified from PhenX (FES)  
Youth Prosocial Behavior Survey (PSB)  
Wills Problem Solving Scale (WPS)  
ABCD School Risk and Protective Factors Survey (SRPF)  
Perceived Discrimination Scale (DIM)  
ABCD Children's Report of Parental Behavioral Inventory (CRPBI)  
ABCD Youth Mexican American Cultural Values Scale (MACV)  
ABCD Peer Behavior Profile: Prosocial & Delinquent Peer Involvement (PBP)  
ABCD Peer Network Health: Protective Scale (PNH)

### **ABCD Sum Scores Culture & Environment Parent**

ABCD Parent Multi-Group Ethnic Identity-Revised Survey (MEIM)  
ABCD Parent Vancouver Index of Acculturation-Short Survey (VIA)  
ABCD Youth Neighborhood Safety/Crime Survey Modified from PhenX (NSC)  
ABCD Parent Family Environment Scale-Family Conflict Subscale Modified from PhenX (FES)  
ABCD Parent Mexican American Cultural Values Scale Modified (MACV)  
Parent Prosocial Behavior Survey (PSB)  
ABCD Parent Community Cohesion from PhenX (COMC)

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