

Consortium on Vulnerability to Externalizing Disorders and Addictions

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A] SOCIO-DEMOGRAPHIC INFORMATION AND ENVIRONMENTAL EXPOSURES

These questionnaires capture details about the environmental exposures in utero and through the developmental span, including psychosocial stressors, socioeconomic status, societal discrimination, mobile phone and radio-frequency exposure, food and asset security, physical activity, nutrition and environmental toxins.

The following table indicates administration of the environmental exposures questionnaires to different age bands within cVEDA, followed by a brief summary of what the questionnaire intends to capture.

	Child (6-11)	Adolescent (12-17)	Adult (18-23)
Sociodemographic Information Sheet ¹	✓if needed, parent answers for child	✓	✓
Environmental Exposures Questionnaire (EEQ) ²	✓ if needed, parent answers for child	✓	✓
Migration questions ³	✓ if needed, parent answers for child	✓	✓
School climate experience ⁴	✓	\checkmark	✓
SCAMP mobile phone use-child report ⁵	✓	\checkmark	✓
Adverse Childhood Experiences	✓	✓	✓
International Questionnaire (ACE-IQ) ⁶ Revised Child Impact of Events Scale (CRIES-8) ⁷	✓	✓	✓
Food Questionnaire ⁸	✓ if needed, parent answers for child	✓	✓
Pregnancy History Instrument – Revised ⁹	✓ mother to respond	✓ mother to respond	✓ mother to respond
Indian Family Violence and Control Scale ¹⁰	✓ mother to respond	✓ mother to respond	✓ mother to respond

¹Socioeconomic Status is captured using questions adapted from The National Family Health Survey (NFHS)-4, a large-scale survey conducted in a representative sample of households throughout India (http://www.rchiips.org/nfhs/index.shtml). The Standard of Living Index, the main reference for the NFHS-4, includes questions on the type of housing, kitchen area, source of drinking water, sanitation condition, source of light, livestock, type of cooking fuel, possessions, additional information on pets etc.

²The Environmental Exposures Questionnaire is taken from the ICMR Pesticides & Neurodegenerative Diseases Project, to assess exposure to neurotoxins, air pollution, noise, etc., among other sources.

³Migration questions are taken from the National Sample Survey (NSS) questions on migration India to assess patterns of migration.

⁴ School experience (BNU): The school climate Questionnaire is a student-reported assessment of the psycho-social environment of the school. Four dimensions are included, namely school safety and order, school support and acceptance, school equality and fairness, and encouraging student autonomy and cooperation. The framework and a few items were revised from the WHO document "Creating an environment for emotional and social well-being". School Climate Questionnaire (57items) has satisfied psychometric properties and performed well in accounting for students' cognitive development, academic achievement and motivation. A short version (21 items) was developed and applied to 2014 national basic educational quality assessment, which is used.

⁵SCAMP mobile phone use questionnaire includes weekend and weekday usage (duration and frequency) of mobile phone including calls, instant messages, text messages, social networking, total internet use and hands-free, laterality of mobile phone use, mobile phone, and the usage of all devices inside and outside of school. It is administered to all children age 12 and above and their parents. Participants completed the SCAMP-child version, and parents completed the SCAMP-parent version.

⁶ ACE-IQ refers to some of the most intensive and frequently occurring sources of stress that children may suffer early in life. These experiences include multiple types of abuse; neglect; violence between parents or caregivers; other kinds of serious household dysfunction such as alcohol and substance abuse; and peer, community and collective violence. Questions cover family dysfunction; physical, sexual and emotional abuse and neglect by parents or caregivers; peer violence; witnessing community violence, and exposure to collective violence. An addendum to this questionnaire that explores positive experiences during childhood (adapted from the Childhood Trauma Questionnaire) has been added keeping in mind that resilience factors would also moderate development alongside exposure to adversity.

⁷ CRIES-8 is a widely used screening tool measuring children at risk for post-traumatic stress symptoms and is designed for use in children aged 8 and above. It has been applied in a variety of cultures, as post-traumatic stress symptoms in children are more similar than they are different from one culture to the other

⁸ The Short Food Questionnaire measures healthy and unhealthy food consumption, as well as sodium and sugar intake.

⁹Pregnancy History Instrument- Revised (PHI-R) pertains to any health-related issues during pregnancy, the child's birth, and early development.

¹⁰Indian Family Violence and Control Scale (IFVCS) is a culturally tailored scale to measure domestic violence (DV) in the Indian context using a 63- item pool evaluating psychological, physical, sexual abuse, and control. IFVCS was developed to fulfill the need for a culturally tailored instrument measuring DV experienced by married Indian women. It was designed to survey the full spectrum of abuse and control that may be perpetrated against a woman by her spouse and marital family. Initial validation of the IFVCS suggests that it is an effective tool for measuring physical, sexual, psychological abuse and control of married women by their spouses and members of their marital families. It has capacity to enrich understanding of DV epidemiology in India and thus enhance development of culturally tailored DV prevention strategies, and to evaluate the efficacy of such interventions in reducing DV. Its use in this project is to record exposure to parental conflict during childhood.

B] TEMPERAMENT AND PERSONALITY

These questionnaires will capture temperament, personality and behavior in different age bands. The questionnaires administered to each age band are listed in the table below:

	Child (6-11)	Adolescent (12-17)	Adult (18-23)
TEMPERAMENT AND PERSONALITY			
Child Behavior Questionnaire (CBQ) ¹¹	to the parent about the child	×	×
Early Adolescent Temperament Questionnaire (EATQ) ¹²	×	\checkmark	×
Adult Temperament Questionnaire (ATQ) ¹³	×	×	\checkmark
Strengths and Difficulties Questionnaire (SDQ)-Parent version ¹⁴	to the parent using PARENT version	to the parent using PARENT version	×
Strengths and Difficulties Questionnaire (SDQ) – Child version	*	to the subject using CHILD version	×
Big Five Inventory (BFI) ¹⁵	×	×	\checkmark

¹¹ Children's Behavior Questionnaire (CBQ); Early Adolescent Temperament Questionnaire-Revised (EATQ-R); Adult Temperament Questionnaire (ATQ) consist of parent and self-report

questionnaires for assessing temperament in childhood, early adolescence, and adulthood. Four factors have been reliably recovered from these instruments, labeled Negative Affectivity, Surgency Extraversion, Effortful Control, and Sociability/Affiliation. The advantage is that common measures of temperament can be reliably studied across a wide age range.

The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioural screening questionnaire for 3-16-year old. All versions of the SDQ ask about 25 attributes, some positive and others negative. These 25 items are divided between 5 scales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behaviour. The same 25 items are included in questionnaires for completion by the parents or teachers of 4-16-year old. Questionnaires for self-completion by adolescents ask about the same 25 traits, though the wording is slightly different.

¹³ The Big Five Inventory (BFI) is a self-report inventory designed to measure the Big Five dimensions. It is quite brief for a multidimensional personality inventory (44 items total) and consists of short phrases with relatively accessible vocabulary. It is freely available for researchers to use for non- commercial research purposes.

C] PARENTING

These questionnaires capture the experience of parenting for the child.

	Child (6-11)	Adolescent (12-17)	Adult (18-23)
PARENTING EXPERIENCE			
Alabama Parenting Questionnaire (APQ) ¹⁴	separate questionnaires for the parent and the child	separate questionnaires for the parent and the child	×
Adolescent Attachment Questionnaire (AAQ)	x	\checkmark	x
Parental Bonding Instrument (PBI)	x	×	✓

¹⁴ Alabama Parenting Questionnaire measures five dimensions of parenting that are relevant to the etiology and treatment of child externalizing problems: (1) positive involvement with children, (2) supervision and monitoring, (3) use of positive discipline techniques, (4)

consistency in the use of such discipline and (5) use of corporal punishment. There is both a parent form and a child form.

¹⁵ Adolescent Attachment Questionnaire comprises 3 scales that evaluate the component features of parent—adolescent attachment. The 3 scales are: availability, which assesses the adolescent's confidence in the availability and responsiveness of the attachment figure; angry distress, which taps the amount of anger in the adolescent—parent relationship; and goal-corrected partnership, which assesses the extent to which the adolescent considers and is empathetic to the needs and feelings of the attachment figure. The AAQ scores 9 items, each rated on a 5-point Likert-type scale. Subscores for the 3 separate scales are produced. Each scale consists of 3 items, so scores range from 3 to 15. High scores indicate more problems on the dimension being measured. For example, high scores on availability indicate low perceived available responsiveness of the attachment figure.

¹⁶ Parental Bonding Instrument lists various attitudes and behaviours of parents (primarily mother and father). Two scales termed 'care' and 'overprotection' or 'control', measure fundamental parental styles as perceived by the child. The measure is 'retrospective', meaning that adults (over 16 years) complete the measure for how they remember their parents during their first 16 years. The measure is to be completed for both mothers and fathers separately. There are 25 item questions, including 12 'care' items and 13 'overprotection' items.

D] MEDICAL/PSYCHIATRIC MORBIDITY

These questionnaires encompass medical history and pre-existing illnesses or conditions in the family, as well as screeners for psychiatric disorders.

	Child	Adolescent	Adult
	(6-11)	(12-17)	(18-23)
MEDICAL/	PSYCHIATRIC	MODBIDITY	
Medical Problem Questionnaire ¹⁷	\checkmark	√	\checkmark
The Family History Questionnaire ¹⁸	\checkmark	\checkmark	\checkmark
Puberty Development Scale ¹⁹	\checkmark	\checkmark	x
MINI- 5 ²⁰	x	*	\checkmark
MINI KID ²¹	\checkmark	\checkmark	×



- ¹⁷ Medical Problem Questionnaire (MPQ) assesses the prevalence of non-communicable diseases present in children, adolescent and adults.
- ¹⁸ Family History Questionnaire: This instrument is adapted from the IMAGEN study to gather information about medical and psychiatric illnesses in the first and second-degree relatives of the participant. It records not only the nature of illnesses present but also the surety with which these are being reported.
- ¹⁹ Puberty Development Scale is used to reliably assess the pubertal status of participants. This scale provides an eight-item self-report measure of physical development based on the Tanner stages with separate forms for males and females. For this scale, there are five categories of pubertal status: (1) prepubertal, (2) beginning pubertal, (3) midpubertal, (4) advanced pubertal, (5) postpubertal. Participants answer questions about their growth in stature and pubic hair, as well as menarche in females and voice changes in males.
- ²⁰ MINI- 5: Mini-International Neuropsychiatric Interview (MINI) was designed as a brief structured interview for the major Axis I psychiatric disorders in DSM-IV and ICD-10. Validation and reliability studies have been done comparing the M.I.N.I. to the SCID-P and the CIDI. The results of these studies show that the M.I.N.I. has acceptably high validation and reliability scores, but can be administered in a much shorter period of time (mean 18.7 11.6 min., median 15 min.) than the above referenced instruments.
- ²¹ The MINI-KID is a structured clinical diagnostic interview designed to assess the presence of current DSM-IV and ICD-10 psychiatric disorders in children and adolescents aged 6 to 17 years in a way that is comprehensive and concise. The interview is administered to the child/adolescent together with the parent(s), although it can be administered to adolescents without a parent present. The MINI-KID follows the structure and format of the adult version of the interview (MINI). Like its adult counterpart, the MINI-KID is organized in diagnostic sections or modules. Using branching tree logic, the instrument asks 2 to 4 screening questions for each disorder. Additional symptom questions within each disorder section are asked only if the screen questions are positively endorsed. All questions are in binary "yes/no" format. Diagnostic criteria are summarized and documented within each disorder section and on a summary sheet. The instrument screens for 24 DSM-IV and ICD-10 psychiatric disorders and suicidality.
- ²² ASSIST-Plus (Alcohol, Smoking and Substance Involvement Screening Test was developed for the World Health Organization (WHO) by an international group of substance abuse

researchers to detect and manage substance use and related problems in primary and general medical care settings.

D] NEUROPSYCHOLOGICAL ASSESSMENTS

The battery of neuropsychological tasks is administered on all individuals.

Instrument	Description
Digit Span	Verbal attention & working memory
Corsi Block Tapping Test	Visual-spatial attention & working memory
Trial Making Test	Visual attention and task shifting
Monetary Choice Questionnaire	Reward processing & decision-making
Wisconsin Card Sorting Test	Cognitive flexibility
Stop Signal Task	Response inhibition (Impulse control)
Balloon Analogue Risk-Taking Task	Risk-taking behaviour
Emotional Recognition Task	Emotion recognition
Social Cognition Rating Tools in the	Theory of Mind
Indian Setting (SOCRATIS)	