

Overview of the 2nd Generation (1993-94) JHU PIRC Field Trial

Our 2nd generation (1993-94) intervention field trial involved the enhancement and combination of the 1st generation classroom-based interventions. It also included a family-school partnership intervention directed at improving school achievement, and reducing attention/concentration problems and aggressive and shy behaviors, by enhancing family-school communication and parenting practices associated with learning and behavior

Subjects, Design, and Measures. A total of 678 children and families participated in the intervention, of which 97% of these consented to participate in the evaluation of the program (See Section 5 for more details). The evaluation battery consisted of structured teacher, parent, and child interviews, and peer nominations. Grades, standardized achievement scores, and attendance data were also extracted from school records. A randomized block design was employed, with schools serving as the blocking factor. Three 1st grade classrooms in each of nine elementary schools were randomly assigned to one of the two intervention conditions or to a control condition. Teachers and children were randomly assigned to intervention conditions. The interventions were limited to grade 1.

The Classroom Centered Intervention (CC). The CC intervention consisted of three components: (1) curricular enhancements; (2) improved classroom behavior management practices; and (3) supplementary strategies for children not performing adequately. An interactive read aloud component was added to increase listening and comprehension skills. The Reader's Theater and journal writing activities were added to increase composition skills, whereas the Critique of the Week was added to increase critical thinking skills. The existing mathematics curriculum was replaced with the Mimosa math curriculum, a whole language approach to the development of mathematics skills. The class was divided into three small heterogeneous groups, which provided the underlying structure for the curricular and behavioral components of the intervention. Current behavior management practices were enhanced by the Good Behavior Game (GBG; Barrish et al., 1969), which involves a whole class strategy to decrease disruptive behavior. Children are assigned in the GBG to one of three heterogeneous groups in the classroom and the teams can only win if they do not exceed a specified criterion of precisely defined off-task and aggressive behaviors. Teachers were provided supplementary strategies directed at children who failed to respond to the GBG and/or to the curricular enhancements.

The Family-School Partnership Intervention (FSP). The family-school partnership intervention (FSP) was designed to improve achievement, and to reduce early aggressive/disruptive behavior by (a) enhancing parent-school communication, and (b) providing parents with effective teaching and child behavior management strategies. The major mechanisms for achieving those aims were: (1) training teachers/school mental health professionals and other relevant school staff in parent-school communication and partnership building (Canter & Canter, 1991); (2) weekly home-school learning and communication activities, and (3) a series of 9 workshops for parents led by the 1st grade teacher and the school psychologist or social worker. The workshop series for parents began immediately after the pretest assessments in the fall of 1st grade, and ran for 7 consecutive weeks through early December. Two follow-up or booster workshops were held in the winter and spring, respectively. The initial parent workshops were aimed at establishing an effective and enduring partnership between parents and school staff, and set the stage for parent-school collaboration in facilitating children's learning and behavior. Subsequent workshops focused on improving parents' teaching skills and supporting their child's academic achievement. The Parents and Children series, a videotape modeling, group discussion program (Webster-Stratton, 1984), formed the basis for the positive discipline component of the intervention.

Intervention Fidelity. To monitor and sustain the integrity of the interventions, the training and intervention manuals were precisely delineated and codified, thus standardizing the content of each training and intervention contact. In addition, each intervener had available a number of materials designed to foster the correct execution of the interventions (i.e., detailed outlines and checklists that prescribe the necessary materials for each intervention contact, the specific themes or tasks that need to be covered, and related information). Finally, the intervener had extensive training prior to the initiation of the interventions, and received ongoing supervision, feedback, and training throughout the intervention period. In terms of implementation and/or participation checks specific to each intervention, the monitoring of fidelity of implementation for the CC intervention involved three parts: (1) measures of setting up the classroom; (2) classroom observations; and (3) classroom visit record reviews. FSP intervention, interveners were required to provide documentation of each contact with parents, including workshop attendance, level of parental participation, and compliance with "homework assignments." Each of the nine CC intervention classrooms were assigned a score from 0-100 representing the percentage of the teacher's implementation of the intervention as designed. Scores were based on the three sources of implementation data identified above. CC implementation scores ranged from 30 to 78 %, with a median of 64.37 %, and a mean of 59.9 % (SD = 17.03 %). All but two of the 9 CC intervention teachers implemented more than 50% of the intervention protocol. In terms of the FSP intervention, parents/caregivers attended on average 4.02 (SD = 2.38, Median 5.0, Range 0-7) of the seven core parenting sessions offered in the Fall of first grade, or 57.14% of the available sessions. Just less than 13% (12.7%) of the parents/caregivers failed to attend any of the core workshops, whereas just more than a third (35.3%) of the parents attended at least six of the seven sessions. In terms of the rate of parent/caregiver completion of weekly, take-home Read Aloud and Fun Math activities, on average parents completed 39.15 (SD = 16.54) of the 64 activities or 60.93%. Once again, about 1/3 (35.7%) completed 75% or more of the activities, whereas only 2.3% failed to complete any of the activities.

THE POPULATION

Defining the Original Study Population & Consent to Participate through Age ~ 20

In the fall of 1993, 678 urban first-graders were recruited from 27 classrooms in 9 elementary schools primarily located in western Baltimore. Of these 678 children, 53.2% were male, 86.8% were African-American, and 13.2% were white. At entrance into first grade, the children ranged in age from 5.3 to 7.7 years with a mean age of 6.2 years (SD \pm 0.34). Just under 2/3 (63.4%) of the children were on free or reduced lunch. Of the 678 children available for participation in fall of first grade, written parental consent was obtained for 97% of the children. There were no significant differences in terms of socio-demographic characteristics or intervention condition between consenting and non-consenting children. Ninety-three percent of the children remained enrolled in project schools through grade 1 and completed the one-year of intervention in their assigned intervention or control condition.

In terms of consent to participate in grades 6-9, consent was obtained from parents for 81.6% (553), 9.6% (65) refused participation, 3.5% (24) were contacted but failed to respond, 4.9% (33) were unlocatable, and 0.4% (3) had died. ***In grades 10-12***, Consent was obtained for 84.7% (574), 6.2% (42) refused to participate, 4.4% (30) were contacted but failed to respond, 4.3% (30) were unlocatable and 0.004%(3 dead) had died. ***At age 19***, 79.8% (541) consented to participate, 1.3% (9) refused to participate, 12.2% (83) were contacted but failed to respond, 6.0% (40) were unlocatable during the fielding period, and 0.7% (5) had died. ***At age 20***, 79.6% (540) consented to participate, 1.2% (8) refused to participate, 10.9% (74) were contacted but failed to respond, 7.5% (51) were unlocatable

during the fielding period, and 0.7% (5) had died. **Importantly**, departure from Baltimore City Public Schools (BCPS) or transfer from an intervention to non-intervention school was unrelated to intervention condition from 1st through 12th grades. Moreover, we found no difference in attrition or refusal rates between or across intervention conditions from grade 1 to age ~ 20.

Percentage of Youth Assessed Over the Course of the Study

Appendix 3 contains a breakdown of the percentage of participants with data on the key outcome measures at each assessment time point as well as the percentage of concurrent assessments. Through 12th grade, nearly ¾ of participants have teacher report data at 8 of 11 possible time points, including the pre-test or baseline assessment in the fall of grade 1. Similarly, nearly ¾ of the participants have participant self-report data for at least 7 out of the 9 possible assessments from grade 6 to age ~ 20 and 6 out of 9 possible parent interviews in grades 1 and 6-12. We have concurrent parent, teacher, and youth report data for at least 4 out of 7 time points in grades 1 and 6-12 for over 70% of the participants. We have school record information for at least 8 of 12 possible time points for over 80% of the population.

TABLES OF PERCENTAGE OF DATA AVAILABLE FOR PARTICIPANTS

Count of Completed Assessments During the Grades 6-12 and One Year Beyond for Those with Consent to Participate

Count of Teacher Interviews Obtained Over the Elementary, Middle & High School Years

| # of Assessments | Frequency | Pct. |
|------------------|-----------|--------|
| 1 | 12 | 1.8 |
| 2 | 16 | 2.4 |
| 3 | 21 | 3.1 |
| 4 | 45 | 6.6 |
| 5 | 25 | 3.7 |
| 6 | 29 | 4.3 |
| 7 | 40 | 5.9 |
| 8 | 59 | 8.7 |
| 9 | 93 | 13.7 |
| 10 | 80 | 11.8 |
| 11 | 258 | 38.1 |
| | | |
| | | |
| | | |
| | | |
| Total | 678 | 100.00 |

Count of Youth Self-Reports of Substance Use, Antisocial Behavior, Anxious & Depressive Symptoms & Disorders in Elementary School & Grades 6-12 and Two Years Beyond

| # of Assessments | Frequency | Pct. |
|------------------|-----------|-------|
| 0 | 5 | 0.7 |
| 1 | 9 | 1.3 |
| 2 | 9 | 1.3 |
| 3 | 9 | 1.3 |
| 4 | 23 | 3.4 |
| 5 | 18 | 2.7 |
| 6 | 24 | 3.5 |
| 7 | 32 | 4.7 |
| 8 | 23 | 3.4 |
| 9 | 28 | 4.1 |
| 10 | 56 | 8.3 |
| 11 | 85 | 12.5 |
| 12 | 89 | 13.1 |
| 13 | 268 | 39.5 |
| | | |
| Total | 678 | 100.0 |

Count of Family Assessments in
Grades 1, 6-12

| # of Assessments | Frequency | Pct. |
|------------------|-----------|-------|
| 0 | 16 | 2.4 |
| 1 | 21 | 3.1 |
| 2 | 55 | 8.1 |
| 3 | 26 | 3.8 |
| 4 | 28 | 4.1 |
| 5 | 23 | 3.4 |
| 6 | 47 | 6.9 |
| 7 | 61 | 9.0 |
| 8 | 141 | 20.8 |
| 9 | 260 | 38.3 |
| Total | 678 | 100.0 |

Count of School Records (including
achievement) in Elementary School &
Grades 6-12

| # of Assessments | Frequency | Pct. |
|------------------|-----------|-------|
| 2 | 1 | 0.1 |
| 4 | 11 | 1.6 |
| 5 | 16 | 2.4 |
| 6 | 29 | 4.3 |
| 7 | 15 | 2.2 |
| 8 | 28 | 4.1 |
| 9 | 52 | 7.7 |
| 10 | 53 | 7.8 |
| 11 | 72 | 10.6 |
| 12 | 401 | 59.1 |
| Total | 678 | 100.0 |

Count of Youth Self-Reports of Substance Use, Antisocial Behavior, Anxious & Depressive Symptoms & Disorders from Grades 6-12 and One Year Beyond

| # of Assessments | Frequency | Pct. |
|------------------|-----------|-------|
| 0 | 32 | 4.7 |
| 1 | 16 | 2.4 |
| 2 | 27 | 4.0 |
| 3 | 35 | 5.2 |
| 4 | 12 | 1.8 |
| 5 | 27 | 4.0 |
| 6 | 36 | 5.3 |
| 7 | 54 | 8.0 |
| 8 | 90 | 13.3 |
| 9 | 349 | 51.5 |
| | | |
| Total | 678 | 100.0 |

Count of Concurrent Teacher, Parent, and Youth Assessments in Grades 6-12

| # of Assessments | Frequency | Pct. |
|------------------|-----------|-------|
| 0 | 103 | 15.2 |
| 1 | 19 | 2.8 |
| 2 | 23 | 3.4 |
| 3 | 53 | 7.8 |
| 4 | 60 | 8.8 |
| 5 | 80 | 11.8 |
| 6 | 115 | 17.0 |
| 7 | 225 | 33.2 |
| Total | 678 | 100.0 |

DESCRIPTION OF THE EXISTING DATA SET FOR THE ELEMENTARY SCHOOL YEARS, GRADES K-5

We describe below the core child and environmental constructs assessed from the spring of kindergarten through 5th grade by method and frequency. The constructs assessed are consistent with the development outcomes of interest and our models of intervention impact described in Sections 2.2, 2.3, and 2.4. They include: (1) the proximal targets of the interventions (SAS: academic achievement, concentration problems, aggressive and shy behavior) and PWB (anxious and depressive symptoms); (2) the hypothesized mediators and moderators of outcome and intervention impact in terms of the characteristics of the youth (e.g., coercive behavior and rejection by parents, teacher, and peers) and the social fields of the classroom (e.g., teacher efforts aimed at increasing parent-teacher collaboration and communication, overall levels of achievement and aggressive and shy behavior and concentration problems), peer group (e.g., percentage of deviant peers), family (e.g., parent discipline, monitoring, reinforcement and teaching practices, support for and involvement in the child's achievement, parent-teacher communication and collaboration around child learning and behavior), and the neighborhood/community (e.g., neighborhood violence, substance use, unemployment and poverty); (3) mental health and special education service use and perceived need for services. School records (including standardized achievement scores, grades, and disciplinary actions) and teacher and parent reports were used to measure SAS, PWB, service use, perceived need for services, and hypothesized moderators and mediators of outcome. Parent reports were also used to obtain data on the targeted family processes and practices in our intervention models. Finally, peer nominations and child self-report measures were also used to measure SAS, PWB, and moderators and mediators of outcome.

In terms of when the measures were administered, the teacher ratings were carried out in kindergarten through third grade, whereas the child self-reports of anxious and depressive symptoms are available from first through third grade. Caregiver reports were collected in the fall and spring of first grade. Peer nominations were only collected in the fall and spring of first grade due to funding cuts. School records (grades, disciplinary actions, attendance, and special education, mental health and drug treatment service use) are available from kindergarten through 5th grade. Group-administered standardized achievement test scores are available from grades K-2. Neighborhood and community characteristics are available from the U.S. Census, city and county planning offices, and police records of neighborhood criminal activity for grades K-5.

Note that a random stratified sub-sample of children drawn from the larger population in the Fall of first grade also provided us a first grade baseline assessment of the microsocial family processes (parent behavior management, teaching, and reinforcement practices) implicated in our developmental models of substance use, antisocial behavior and anxious and depressive symptoms, along with children's perceived competence, explanatory style, and salience of success in the behavioral, peer, family, and physical domains to perceptions of the self. The assessment methods employed included structured clinical interviews (carried out by child-clinical psychologists) and direct observations of parent-child interaction around a learning and behavior management task. See Table 1 at the end of this appendix for a description of those measures.

DEVELOPMENTAL & INTERVENTION OUTCOMES: SOCIAL ADAPTATION & PSYCHOLOGICAL WELL-BEING IN THE CLASSROOM & HOME

Peer Assessment Inventory (PAI) (Pekarik et al., 1976). The PAI was administered in the Fall and Spring of 1st grade. It is a modified version of the Revised-Pupil Evaluation Inventory (R-PEI) and is designed to assess the child's adaptation to the demands of the classroom peer group. Ten items were selected from the original R-PEI on the basis of their relevance to three social adaptational constructs: aggressive behavior, social participation/shy behavior, and likeability/rejection. Additional items were included to assess depression and anxiety and bullying and victimization. In terms of administration, a question is read aloud to the class and the children are then instructed to circle the pictures of all children in their classroom described by the question. Thus, children are able to make unlimited nominations of classmates for each question. Raw scores on each of the above dimensions are converted to standard scores based on the distribution of nominations within a child's classroom. The PAI has demonstrated high test-retest reliability and the coefficient alphas were all above .70 for subscales enumerated above (e.g., aggressive behavior, rejection, etc). Test-retest correlations (intraclass correlation coefficients) over a 6-month interval ranged from .19 to .66 for the 14 item peer nomination items. In general, the test-retest data were best for the authority acceptance/aggressive behavior ("Which children get into trouble a lot?", ICC = .66, "Which children start fights?", ICC = .63) and likeability/rejection ("Which children are your best friends?", ICC = .55, "Which children don't you like?", ICC = .52) nomination items and weakest for those items assessing psychological well-being ("Which children worry a lot?", ICC = .19, "Which children are sad a lot?", .33). In terms of concurrent validity, the peer nomination items "...bullies", "...get into trouble a lot", and "...start fights" were each significantly correlated with the teacher rated conduct problems and oppositional defiant behavior in first grade ("Bullies", Males, $r = .54$, $p < .001$, Females, $r = .33$; "Get into trouble a lot", $r = .65$, Females, $r = .47$; "Start fights", Males, $r = .54$, Females, $r = .28$).

Teacher Observation of Classroom Adaptation-Revised (TOCA-R; Werthamer-Larsson et al., 1991). The TOCA-R is a brief measure of each child's adequacy of performance on the core tasks in the classroom as defined by the teacher, which was administered in grades 1-3. It is a structured interview administered by a trained member of the assessment staff. The interviewer records the teacher's ratings of the adequacy of each child's performance on six basic tasks: accepting authority (aggressive behavior); social participation (shy or withdrawn behavior); self-regulation (impulsivity), motor control (hyperactivity), concentration (inattention) and peer likeability (rejection). The teacher also reports on the child's overall grade performance in (excellent, good, fair, barely, passing, or failing) and whether a child is receiving special education services, whether they are in need of such services (regardless of whether they are receiving those services), whether they are receiving and/or are in need of counseling for behavioral problems, attention concentration problems, and anxiety and depression, respectively, and whether they are receiving and/or are in need of medication for these problems. Test-retest correlations over a four month interval with different interviewers were .60 or higher for each of these subscales, whereas the coefficient alphas ranged from .80 to .94 for the 6 subscales. The coefficient alphas for the TOCA-R subscales in elementary school were .94 (Aggressive/Disruptive Behavior), .97 (Attention/Concentration Problems), .83 (Shy Behavior), .79 (Impulsivity), .80 (Hyperactivity), and .78 (Likeability/Rejection). The 1-year test-retest intraclass reliability coefficients for the aggressive/disruptive subscale ranged from .65 to .79 over grades 2-3, 3-4, and 4-5. One-year test-retest reliability ranged from .54 to .56 over grades 1-5 for the Attention/Concentration problems subscale, .33 to .35 for Shy Behavior, .35 to .36 for Likeability/Rejection, .44 to .49 for the Impulsivity, and .41 to .46 for the Hyperactivity subscale. In terms of concurrent validity, scores on

the Aggressive/Disruptive behavior subscale were significantly related to the incidence of school suspensions within each year in elementary school (i.e., the higher the score on aggressive behavior, the greater the likelihood of being suspended from school that year) in the 1st generation JHU PIRC trial. Scores on the Attention-Concentration Problems subscale correlated -.62 with the reading total score on the California Achievement Test in first grade. In addition, a correlation of .67 was found between the Aggressive/Disruptive Behavior subscale and peer nominations for gets into trouble. The TOCA-R Likeability/Rejection subscale correlated .44 with peer nominations for likeability/rejection. The TOCA-R Attention-Concentration Problems, Impulsivity and Hyperactivity subscales were significantly associated with teacher perception of the child's need for medication for emotional and behavior problems in first grade. In terms of predictive validity, in grades 1-5, respectively, the aggressive/disruptive behavior subscale significantly predicted adjudication for a violent crime in adolescence and a diagnosis of Antisocial Personality Disorder at age 19-20 in the 1st generation JHU PIRC trial and follow-up. In addition, for each unit increase in TOCA-R Attention/Concentration subscale scores in grade 1, there was just under a 60% increase in the likelihood of failing to graduate from high school. Similarly, for each unit increase on the Hyperactivity and Impulsivity subscales in grade 1, there was a nearly 50% increase in the risk of being identified as in need of special education by 8th grade teachers.

Teacher Observation of Classroom Adaptation-Short Form. To assist in balancing the assignment of children to classrooms in first grade, kindergarten teachers in the nine participating elementary schools in the Spring of 1993 were asked to rate their students on 6 dimensions using a short form of the TOCA-R. The five dimensions included aggressive behavior/authority acceptance, shy behavior, attention/concentration problems, academic readiness, need for special education services, and parent involvement. With the exception of academic readiness, each dimension was measured by one item.

Parent Observation of Child Adaptation (POCA). The POCA was administered in the fall and spring of grade 1 and was designed as a counterpart to the TOCA-R. The POCA assesses the child's adaptation to the demands of the family social field. Like the TOCA-R, the interviewer records the parent's ratings of the adequacy of each child's performance on six basic tasks: accepting authority (aggressive behavior); social participation (shy or withdrawn behavior); self-regulation (impulsivity), motor control (hyperactivity), concentration (inattention) and peer likeability (rejection). Parents are asked to report whether their child is receiving special education services, whether they think their child is in need of such services (regardless of whether they are receiving those services), whether their child is receiving and/or is in need of counseling for behavioral problems, attention concentration problems, and anxiety and depression, respectively, and whether their child is receiving and/or are in need of medication for these problems. In constructing the POCA we attempted to use the exact wording of the TOCA-R items and the service utilization component. Psychometric analyses point to strong internal consistency for the factors of concentration problems, and aggressive behavior, shy behaviors. We have found modest convergence with TOCA-R teacher ratings, and modest to moderate concurrent validity with achievement scores. The coefficient alphas for the POCA subscales in first grade were .79 (Aggressive/Disruptive Behavior), .85 (Attention/Concentration Problems), .70 (Shy/Withdrawn Behavior), .47 (Impulsivity), .54 (Hyperactivity), and .78 (Peer Likeability/Rejection). The 6-month test-retest intraclass reliability coefficient for the Aggressive/Disruptive Behavior subscale was .74. With respect to concurrent validity, parent report on the POCA's Aggressive/Disruptive subscale in the fall of first grade was significantly associated with the likelihood of a school disciplinary removal/suspension and teacher report of the need for mental health services for aggressive/disruptive behavior by the end of first grade. Scores on the POCA Attention/Concentration problems subscale in first grade were significantly associated with first

grade teacher reports of children's need for an evaluation for special education services. Similar significant relationships were found for the hyperactivity and impulsivity subscales, respectively. The higher the level of parent reported hyperactivity and impulsivity problems, respectively, the higher the likelihood that teachers judged a child in need of an evaluation for special education in 1st grade. Parent report on the Shy/Withdrawn behavior subscale in first grade was significantly correlated with teacher-rated shy/withdrawn behavior in 1st grade, whereas parent report on the Likeability/Rejection subscale was significantly correlated with peer nominations of likeability/rejection in 1st grade. In terms of predictive validity, parent report on the POCA's Aggressive/Disruptive subscale in the fall of first grade predicted a school disciplinary removal/suspension in middle school and a lifetime diagnosis of conduct disorder by 9th grade, based on youth and/or parent report on C-DISC IV (Shaffer et al., 2000). First grade scores on the POCA Attention/Concentration, Hyperactivity, and Impulsivity subscales, respectively, predicted teacher report of the receipt of special education in middle school.

Comprehensive Test of Basic Skills 4 (CTBS; Fourth Edition, 1990). The CTBS is one of the most frequently used standardized achievement batteries in the United States. Subtests in the CTBS assess verbal (word analysis, visual recognition, vocabulary, comprehension, spelling, and language mechanics and expression) and quantitative (computation, concepts, and applications) topics. The CTBS was standardized on a nationally representative sample of 323,000 children from kindergarten through grade 12. The CTBS was standardized on a nationally representative sample of 323,000 children from kindergarten through grade 12. The CTBS was administered in the Spring of kindergarten, the fall of first grade, and the spring of first and second grades.

Baltimore How I Feel-Young Child Version, Child Report (BHIF-YC-C, Ialongo, Kellam, & Poduska, 1999). The BHIF-YC-C is an early elementary school, child self-report scale of depressive and anxious symptoms. Children report the frequency of depressive and anxious symptoms over the last two weeks on a three-point scale (0 = Never, 1 = Sometimes, 2 = Almost Always). The BHIF-YC-C was designed to be used as a first stage measure in two-stage epidemiologic investigations of the prevalence of child mood and anxiety disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R; American Psychiatric Association, 1987). Accordingly, the 30-items making up the scale map onto DSM-III-R criteria for major depression and overanxious and separation anxiety disorders. A pool of items was drawn from existing child self-report measures, including the Children's Depression Inventory (Kovacs, 1983), the Depression Self-Rating Scale (Asarnow & Carlson, 1985), the Hopelessness Scale for Children (Kazdin et al., 1986) and the Revised-Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985). The BHIF-YC-C was designed to be administered on a classroom-wide basis and to require no reading skills on the part of the children. The BHIF-C is administered by a 3-person team made up of adult lay interviewers. While one team member reads each item aloud twice to the class, the two other team members circulate through the classroom maintaining classroom order and assisting children who are having difficulties in paying attention or understanding the instructions. To further obviate the need for reading skills, pictures of common objects (e.g., a ball, apple, etc.) are used to represent the items and the answer choices in the booklets the children use to record their responses. The typical administration time is approximately 30-35 minutes. The internal consistency for BHIF-YC-C as a whole was .77 in first grade, .78 in 2nd grade and .82 in 3rd grade. The internal consistency for the BHIF-YC-C Anxiety subscale was .64 in 1st grade, .67 in 2nd grade, and .75 in 3rd grade, whereas it was .70, .67, and .75 in grades 1-3, respectively, for the BHIF-YC-C Depression subscale. The 6-month, test-retest intraclass correlation coefficient in 1st grade for the BHIF-YC-C Depression subscale was .31, whereas it was .28 for the Anxiety subscale. In terms of concurrent validity, for each standard deviation increase in BHIF-YC-C Depression subscale scores in 1st grade, there was a 3-fold (and

statistically significant) increase in the likelihood of the child's parent reporting that the child was in need of mental health services for "...feeling sad, worried or upset." This same relationship held up for BHIF-YC-C Anxiety subscale scores. In addition, for each standard deviation increase in BHIF-YC-C Depression subscale scores in 1st grade, there was a 5-fold (and statistically significant) increase in the likelihood of the child's teacher reporting that the child was in need of an evaluation for special education services. A 2 ½-fold increase was found for the BHIF-YC-C Anxiety subscales scores in terms of teacher report of the need for a special education evaluation.

Baltimore How I Feel-Young Child Version, Parent Report (BHIF-YC-P, Ialongo, Kellam, & Poduska, 1999). The BHIF-YC-P is an early elementary school, parent report scale of child depressive and anxious symptoms. Parents report the frequency of depressive and anxious symptoms over the last two weeks on a three-point scale (0 = Never, 1 = Sometimes, 2 =Almost Always). The BHIF-YC-P is the parent version of the child self-report form of the BHIF-YC-C described above. The 30-items are the same as those included in the BHIF-YC-P; however, the person is changed from you to s/he. The BHIF-YC-P, like the BHIF-YC-C, was designed to be used as a first stage measure in two-stage epidemiologic investigations of the prevalence of child mood and anxiety disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R; American Psychiatric Association, 1987). Accordingly, the items making up the scale map onto DSM-III-R criteria for major depression and overanxious and separation anxiety disorders. A pool of items was drawn from existing child self-report measures, including the Children's Depression Inventory (Kovacs, 1983), the Depression Self-Rating Scale (Asarnow & Carlson, 1985), the Hopelessness Scale for Children (Kazdin et al., 1986) and the Revised-Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985). The internal consistency for the BHIF-YC-P as a whole was .84 in first grade, whereas it was .72 for the Anxiety subscale and .80 for the Depression subscale. The 6-month, test-retest intraclass correlation coefficient in 1st grade for the BHIF Depression subscale was .47, whereas it was .38 for the Anxiety subscale. In terms of concurrent validity, for each standard deviation increase in BHIF-YC-P Depression subscale scores in 1st grade, there was a 17-fold (and statistically significant) increase in the likelihood of a teacher report that the child was in need of or had received mental health services for "...emotional or behavioral problems." Similarly, BHIF-YC-P Anxiety subscale scores were associated with a 6-fold increase in the likelihood of teacher report of the need or receipt of mental health services for emotional or behavior problems. This same relationship held up for BHIF-YC-P Anxiety subscale scores. With respect to predictive validity, for each standard deviation increase in BHIF-YC-P Depression subscale scores in 1st grade, there was a nearly 9-fold (and statistically significant) increase in the likelihood that the child met DSM-IV criteria for a Major Depression episode in 9th grade based on parent report on the computerized-Diagnostic Interview Schedule Interview for Children IV (C-DISC-IV, Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000). A 20-fold increase was found for the BHIF-YC-P Anxiety subscales scores in predicting a child diagnosis of Generalized Anxiety Disorder in 9th grade based on parent report on the C-DISC-IV (Shaffer et al., 2000).

MEASURES OF INTERVENTION & DEVELOPMENTAL OUTCOMES: SCHOOL RECORDS

Besides the child, teacher, and caregiver assessments, school records including attendance, grades, standardized test scores, disciplinary removals and suspensions (and the associated offenses), special education and school mental health services received, free lunch status, and demographic information

will continue to be obtained by hand or magnetic data file transfer, both with error and reliability checks.

VARIATION IN INTERVENTION RESPONSE & DEVELOPMENTAL OUTCOMES: MODERATORS/MEDIATORS OF OUTCOMES--CHARACTERISTICS OF THE FAMILY

Structured Interview of Parent Management Skills and Practices--Parent Version (SIPMSP, Patterson, 1982). The SIPMSP was designed to assess the major constructs included in Patterson et al.'s (1992) model of the development of antisocial behavior in children. That is, the family processes targeted for change in the parent discipline component of the family-school partnership intervention (FSP). As in the youth version, the items assess (1) parental monitoring, (2) discipline, (3) reinforcement, (4) rejection, and (5) problem solving. Parents are asked to respond to questions regarding their disciplinary practices in open ended and forced choice response formats. In collaboration with the Oregon Social Learning Center Prevention Center, we modified the SIPMSP to include items assessing parent-teacher communication and involvement and support for the child's academic achievement, which were targets of the FSP family learning component. In our first grade analyses (1993-94 JHU PIRC trials), we found inept discipline as assessed by SIPMSP was associated with increased child aggression as rated by teachers, whereas parent rejection was related to decrements in child psychological well-being in terms of anxious and depressive symptoms. We also found significant relations between the SIPMSP support for achievement subscale scores and children's standardized achievement in first grade.

Life Change Events from the Health and Daily Living Form (HDL). Items were adapted from the life change events indices from the Health and Daily Living Form (HDL) (Moos, Cronkite, Billings, & Finney, 1987) to assess parent/respondent life stresses in the fall and spring of 1st grade. The life change indices tapped a variety of negative life events, including deaths in the family, caregiver divorces/separations/break-ups, and the presence of a family member(s), with financial, legal, and health problems—mental, drug and physical.

University of Michigan Version of the Composite International Diagnostic Interview (Kessler et al., 1994). We administered to the parent/respondent the screening questions from UM CIDI for Generalized Anxiety Disorder, Panic, and MDD/Dysthymia in the fall and spring of 1st grade to assess the parent/respondent's mental health.

Household Structure and Demographics. A number of family sociodemographic characteristics will also be obtained including: parental education, occupational status, income (including all sources), ethnicity, size of family household, and ages and relationships of household members.

National Health and Nutrition Examination Survey III: Data Collection Forms (The NHNES, 1990). The NHNES interviews were developed for use in the ongoing National Center for Health Statistics studies of adult and child health status, practices, and service utilization. Screening items from the child and adult short forms of the interview were used. These items included an overall appraisal of current health status and the extent to which any disabling health conditions are present. These items allow us to model how family and youth physical health impact youth psychological well-being and the parenting practices implicated in the development of aggressive and shy behaviors, concentration problems, and poor achievement.

**VARIATION IN INTERVENTION RESPONSE & DEVELOPMENTAL OUTCOMES:
MODERATORS/MEDIATORS OF OUTCOMES--CHARACTERISTICS OF THE
NEIGHBORHOOD AND SCHOOL SOCIAL FIELDS**

Census Bureau data and police and school records were used to derive salient ecological variables. More specifically, census information was gathered to characterize youth neighborhoods in terms of (un)employment, poverty, and education levels, household size and structure, type of housing, population density, and ethnic composition. School records were used to characterize the schools the participating children attended with respect to the overall prevalence of aggressive/disruptive behavior, disciplinary actions for the use and sale of drugs, and poor academic achievement. Additional data were gathered on average class sizes, attendance, the percentage of students receiving free or reduced lunch (a proxy for poverty status), and the ethnic make-up of the school population.

Table 1. THE ELEMENTARY SCHOOL YEARS, K-5

| CONSTRUCT | METH OD ¹ | GRAD E ² | CITATION |
|---|------------------------------|--|---|
| Social Adaptational Status | | | |
| Conduct Problems/Oppositional Defiant Behavior | T ,P, Pr | T = K ³ - 3 P = 1 Pr = 1 | <ul style="list-style-type: none"> • Teacher: Teacher Observation of Classroom Adaptation-Revised (TOCA-R): Werthamer-Larsson, Kellam, & Wheeler (1991) • Parent: Parent Observation of Child Adaptation (POCA) (Ialongo et al., 1999) • Peer: Peer Nomination Inventory: Pekarik, Prinz, Leibert, Weintruab, & Neale (1976) |
| Social Contact/Shy Behavior Likeability/Rejection | T,P, Pr | | |
| Attention/Concentration Problems Hyperactivity Impulsivity | T,P T,P T,P | | |
| Grades Attendance Standardized Achievement ⁴ Special Education Disciplinary Removals Free Lunch Status Grade Retention | School Records | K-5 | |
| Criminal Convictions Arrests Police Contact | Police & Court Records | K-5 | |
| Psychological Well-Being | | | |
| Anxiety Depression | Y, P, Pr | Y = 1-3 P = 1 Pr = 1 | <ul style="list-style-type: none"> • Baltimore How I Feel (BHIF): Ialongo et al. (1989) Parent & Child Versions • Peer: Peer Nomination Inventory: Pekarik, Prinz, Leibert, Weintruab, & Neale (1976) |

| Mediators & Moderators | | | |
|---|---|------------------|--|
| Parent Discipline Practices; Monitoring; Reinforcement; Rejection, Problem Solving, Support for Learning Parent-Teacher Communication | Y, P | Y = 1 P = 1 | • Structured Interview of Parent Management Skills & Practices: Capaldi & Patterson (1989) |
| Family Mental Health Family Drug and Alcohol Problems Family Life Events and Social Support | P | P = 1 | • UM-CIDI (Kessler et al. 1994) • Health and Daily Living Form: Moos, Cronkite, Billings, & Finney (1987) |
| Parent and Child Physical Health Family Income | P | P = 1 | • National Health and Nutrition Examination Survey (NHNES): NCHS (1990) |
| <u>Community Profiles and Characteristics:</u> Unemployment Poverty Education Levels Household Size And Structure Type Of Housing Population Density Ethnic Composition Nature And Rates Of Crime | Census, Police & Court Records | K-5 | |
| Services Need and Use | | | |
| Need for Services for Emotional and Behavioral Problems | P, T | P = 1 T = K-3 | |
| Use Of Services For Emotional And Behavioral Problems | P, T, | P = 1 T = K-3 | |
| Need for Special Education Services | P, T | P = 1 T = K-3 | |
| Use Of Special Education Services | P, T | P = 1 T = K-3 | |

¹ T=Teacher; P=Parent; Pr=Peer; Y=Youth.

² In Grade 1 assessments were conducted in Fall and Spring.

³ An abbreviated form of the TOCA-R was used in the Spring of kindergarten.

⁴ Standardized achievement tests were not administered in Maryland in grade 4.

DESCRIPTION OF THE EXISTING DATA SET FOR THE MIDDLE & HIGH SCHOOL YEARS, GRADES 6-12

As with K-5 assessments, the constructs assessed on an annual basis in grades 6-12 included (1) the developmental outcomes of interest, which are the distal targets of the interventions (youth substance use, abuse, and dependence, antisocial behavior and disorder, gambling, anxious and depressive symptoms and disorders, academic achievement, and mental health, drug treatment, and special education service use) and (2) the hypothesized mediators and moderators of outcome and intervention impact in terms of the characteristics of the youth (e.g., concentration problems, shy/withdrawn behavior, perceived competence, control and contingency related beliefs, perfectionism, and reward dominant response style), and the social fields of the classroom (classroom prevalence of poor achievement and aggressive/disruptive behavior), peer group (e.g., association with deviant peers, peer drug use, peer pressure to use drugs), family (e.g., parent discipline, supervision, reinforcement, economic hardship, physical health, divorce, death, and incarceration) and the neighborhood/community (e.g., income and education, support and cohesion, racial discrimination, availability of drugs, drug use and sale, and violent crime). These include each of the outcomes and moderators and mediators described in Sections 2.2-2.11.

The sources of data in grades 6-12 included (1) annual youth, parent, teacher, and school mental health professional reports; (2) annual school record searches; (3) and the annual characterization of participants' neighborhoods based on data from the U.S. Census, city and county planning offices, and police records of neighborhood criminal activity. Of particular interest with respect to neighborhood criminal activity and the aims of this application are the levels of arrests for possession and sale of illicit substances.

The drug and alcohol component of the youth interviewer was self-administered via a computer with audio as well as visual presentation of the questions. Frequency of substance use (lifetime, last year, last month, last week) was measured using questions from the Monitoring the Future National Survey (MTFNS, Johnston et al., 1995). Beginning in grade 9, the drug dependence sub-scales from the National Survey on Drug Use & Health (NSDUH [formerly, National Household Survey on Drug Abuse], Substance Abuse, Mental Health Services Administration, SAMHSA, 2001) were administered. In grades 6-12, data on youth mental health and drug treatment utilization was obtained from parent report on the Service Assessment for Children and Adolescents-Parent Report (SACA-P, Horwitz et al., 2001) and school records. Subscales from the MTFNS were also used in grades 6-12 to assess respondent's attitudes towards drug use, including personal disapproval of drug use and perceived attitudes of parents and friends towards drug use. In addition, we used subscales from the National Survey on Drug Use and Health (SAMHSA, 2001) to assess respondents' perceptions of the availability and harmfulness of substances. We also developed three additional scales for use in our annual assessments from grades 6-12: youth report of (1) whether and how often they were offered substances to use; (2) their intention to use substances if offered in the future; (3) and their perceptions of peer pressure to use substances.

Finally, a comprehensive neurocognitive assessment battery was administered in 9th & 10th grades to boys who met diagnostic criteria for Conduct Disorder problems and a comparison sample of boys without any CD problems. The details of the sampling design and assessment battery are described in Fishbein et al. (2006a, 2006b).

DEVELOPMENTAL & INTERVENTION OUTCOMES: SUBSTANCE USE, SOCIAL ADAPTATIONAL STATUS, AND PSYCHOLOGICAL-WELL BEING --YOUTH SELF-REPORT

Substance Use: (Monitoring the Future National Survey, MTFNS, Johnston et al., 1995; National Survey on Drug Use & Health, NSDUH, Substance Abuse Mental Health Services Administration, SAMSHA, 2001). The drug and alcohol component of the youth interview was self-administered in grades 6-12 via a computer with audio as well as visual presentation of the questions. Frequency of substance use (lifetime, last year, last month, last week) was measured using questions from Monitoring the Future National Survey (MFSNS, Johnston et al., 1995). Use of the following substances were assessed: tobacco, alcohol, marijuana, cocaine, crack, heroin, ecstasy, inhalants, hallucinogens, amphetamines, narcotics, and tranquilizers. In addition, the frequency of having been drunk, having 5 drinks or more in a row on one occasion, using a needle to inject heroin, and using a needle to inject a drug other than heroin. Beginning in grade 9, the drug dependence sub-scales from the NSDUH (SAMSHA, 2001). The NSDUH dependence items were designed to allow generation of DSM-IV diagnoses of drug dependence.

Diagnostic Interview Schedule for Children-IV (DISC-IV, Shaffer et al., 2000). The DISC-IV's CD, MDD and Dysthymic Disorder modules were employed in grades 6-12. The DISC-IV is a fully structured interview that generates a Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV, American Psychiatric Association, 1994) diagnosis as well as the number of diagnostic criteria met and a symptom count for each disorder. Consistent with the DSM-IV, the DISC also generates impairment indices when diagnostic criteria are met for disorder. Like the Child-Global Assessment Scale (C-GAS, Shaffer et al., 1983), the impairment criteria are based on the youth's level of functioning in the social/friends, school, and home/family spheres of functioning. The impairment indices are generated from responses to questions relevant to youth's level of functioning in each of these areas. The DISC-IV specifies the exact wording and sequence of questions and provides a complete set of categories for classifying respondents' replies. It is designed to be administered by lay interviewers. Although the complete results of the psychometric studies of the DISC-IV have yet to be published, the data on the earlier versions of the DISC (DISC 2.1, DISC 2.3), suggest adequate test-retest reliability (Jensen et al., 1995) and validity (Scwab-Stone et al., 1996). A computer algorithm developed by Shaffer et al. (2000) will be used to derive the diagnoses and the associated impairment levels.

Baltimore How I Feel (BHIF). The BHIF is a youth self-report scale of depressive and anxious symptoms, which was used in grades 1-3 and 6-12. Youth report the frequency of depressive and anxious symptoms over the last two weeks on a 4-point frequency scale. Items were keyed for the most part to Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R; American Psychiatric Association, 1987) criteria for major depression, dysthymia, and the anxiety disorders. A pool of items was drawn from existing child self-report measures, including the Children's Depression Inventory (Kovacs, 1983), the Depression Self-Rating Scale (Asarnow & Carlson, 1985), the Hopelessness Scale for Children (Kazdin, Rodgers, & Colbus, 1986) and the Revised-Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985). The alphas for the BHIF Depression and Anxiety subscales ranged from .79 to .85 in the middle school years. Two-week test-retest reliability coefficients were .76 and .83 for anxiety and depression. In terms of concurrent validity, youth self-reports on the BHIF Depression subscale in grade six significantly predicted a diagnosis of Major Depressive Disorder on the Diagnostic Interview Schedule for Children-IV (DISC-IV, Shaffer, Fisher,

Lucas, Dulcan, & Schwab-Stone, 2000), whereas grade six BHIF Anxiety subscale scores significantly predicted a diagnosis of Generalized Anxiety Disorder on the DISC-IV.

Kaufman Test of Educational Achievement-Brief and Comprehensive Forms (Kaufman & Kaufman, 1998). The K-TEA is an individually administered diagnostic battery that measures reading, mathematics, and spelling skills. The brief form of the K-TEA is designed to provide a global assessment of achievement in each of the latter areas. In the present study, we have employed the Reading (reading decoding and comprehension) sub-test from the brief form in grades 6-10 and grade 12 and the Mathematics Computation sub-test from the comprehensive form in grades 7-10 and grade 12. The K-TEA Math Computation test was not administered in grade 6 in light of initial concerns over the length of the overall battery. Both forms provide age and grade-based standard scores ($M = 100$, $SD = 15$), grade equivalents, percentile ranks, normal curve equivalents, and stanines. The K-TEA norms are based on a nationally representative sampling of over 3,000 children from grades 1-12.

Young Adult Employment History. Since grade 11, we have asked the participants to report on their employment history, including the number and types of jobs held, length of time employed, reasons for leaving, rate of pay and if they are unemployed whether they are actively seeking work. Duncan's Socioeconomic Status Index (1982) has been used to code occupational status according to income, education, and occupational prestige. These codes can be grouped according to the classifications used by the U.S. Census Bureau.

Young Adult Dating, Marital, Intimate Relationship History. Since grade 11 (or age 16-17), we have obtained a history of the participant's intimate/romantic relationships, including dating, marriages, divorces, and separations. We ask the youth to quantify the number of the relationships s/he has been involved in and the length of time involved in these relationships. In terms of dating, we also ask about the types of relationships they have been involved in (one night stands, casually dating, regularly dating, only seeing one person, commitment to marriage). For all intimate relationships reported, we ask the participant the reasons for terminating the relationships and to characterize each relationship with respect to the frequency of verbal aggression/coercion, physical aggression/threat, and severe aggression.

Youth Self-Report Profile (YSR) (Achenbach & Edelbrock, 1987). Beginning in 7th grade through grade 12, we used the social competence items (I-IV) from the YSR as a measure of the youth's perceptions of their performance and participation in sports, social activities and organizations, and any hobbies or artistic activities the youth may engage in, such as art, music, or dance. The psychometric properties of the social competence scale are described in Achenbach and Edelbrock (1987).

Eating Disorders Inventory (EDI) (Garner, Olmsted, & Polivy, 1983). The Eating Disorders Inventory (EDI) is a frequently used 64-item self-report measure of eating-related attitudes and traits. It has eight subscales: drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears. The subscales have shown adequate internal consistency coefficients and have been well validated (Garner et al., 1983; Vohs, Bardone, Joiner, Abramson, & Heatherton, 1999). We used only the bulimia subscale in grade 10. The Bulimia subscale includes six items that assess binge eating and purging (e.g., "I stuff myself with food," "I have the thought of trying to vomit to lose weight"). Internal consistency for the bulimia subscale in a variety of samples is in the range from .80 - .90.

The South Oaks Gambling Screen—Revised for Adolescents (SOGS-RA, Winters et al., 1993) was in grade 11 to assess gambling behaviors. The SOGSRA is a 12-item adaptation of the adult-orientated SOGS28 that assesses gambling behavior and gambling-related problems in the past 12-month time frame using wording of items and response options that reflect adolescent gambling behavior at an

age-appropriate reading level.⁴ A score of 4 or more on the SOGS-RA indicates problem gambling, and a score of 2–3 is indicative of “at-risk” gambling behavior.⁴ Based on SOGSRA questions, we created a strategic game variable (bet on games of personal skill, sports, card games, horse or dog races, dice games, coins in the past-year) and a non-strategic game variable (bingo, slot and poker machines, lottery, pull tabs and scratch), similar to those described elsewhere.²⁹ In our sample the SOGS-RA internal consistency reliability was $\alpha = 0.71$, comparable to the reported scale of .80 in other samples.

DEVELOPMENTAL & INTERVENTION OUTCOMES: SOCIAL ADAPTATIONAL STATUS IN THE CLASSROOM--TEACHER REPORT

Teacher Report of Classroom Behavior Checklist (TRCBC). The TRCBC was used in the grades 6-12 follow-up. It is an adaptation of the Teacher Observation of Classroom Adaptation-Revised (TOCA-R; Werthamer-Larsson et al., 1991), a structured interview, used in grades 1-3 and in the first generation JHU PIRC trial (Werthamer et al., 1991). The decision to go to a checklist format versus an interview in middle school reflected concerns over the costs and logistical burden of interviewing upwards of 300-400 teachers in over 130 schools. Indeed most middle and high school students have a different teacher for each of their academic subjects. Given the targets of the first grade interventions were reading/language arts and mathematics, we chose to only ask the youths’ English/Language Arts and Mathematics teachers to complete the TRCBC. Like the TOCA-R, the domains assessed in the TRCBC are accepting authority (the maladaptive forms being Conduct Problems and Oppositional Defiant Behavior), attention/concentration and readiness for work (or attention/concentration problems), and social participation (or shy behavior). Also measured are students’ self-regulation (impulsivity), motor control (hyperactivity), and likeability (peer likeability/rejection). The teacher also reports on the youth’s grade in that class (excellent, good, fair, barely, passing, or failing) and responds to a set of items tapping his/her acceptance/rejection of the youth (e.g., “how much do you enjoy having this child in your class?”). Finally, the teacher reports on the size of the class and provides an estimate of the percentage of youth in the classroom with mild, moderate, and severe problems with aggression, shy behavior, and concentration problems and the percentage of those barely passing and failing, respectively. The coefficient alphas for the TRCBC subscales in middle school were .91 (Conduct Problems), .89 (Oppositional Defiant Behavior), .97 (Attention/Concentration Problems), .83 (Shy Behavior), .79 (Impulsivity), .80 (Hyperactivity), and .78 (Likeability/Rejection). Items were largely drawn from the DSM-III-R and IV for all the subscales with the exception of likeability/rejection and social participation/shy behavior. Given a common set of items/indicators is necessary for analysis of repeated measures in studies of growth and development and intervention impact such as ours, the TOCA-R and, accordingly, the TRCBC items have remained constant over the course of the study. Like Achenbach & Edlebrock (1983), rather than delete or add items over time out of concern for the age appropriateness of the items, we chose to create a scale that included items that represented the breadth of common maladaptive behaviors seen *either* in the child *and/or* adolescent years. In terms of the concurrent validity of the TRCBC, the Conduct Problems and Oppositional Defiant Behavior subscales were significantly related to whether a child had been suspended from school during elementary and middle school. In addition, the TRCBC Attention-Concentration Problems, Impulsivity and Hyperactivity subscales were significantly associated with teacher perception of the child’s the need for medication for emotional and behavior problems.

DEVELOPMENTAL & INTERVENTION OUTCOMES: YOUTH SOCIAL ADAPTATIONAL STATUS AND PSYCHOLOGICAL WELL-BEING--CAREGIVER REPORT

The Parent Observation of Child Adaptation (POCA) is a structured interview designed to measure parents' perceptions of the youth's adaptation within the family context. The POCA was used in grade 1 as well as in grades 6-9. The items and domains largely mirror those of the TOCA-R and the TRCBC (the teacher checklist) and were largely drawn from the DSM-III-R and IV for all the subscales with the exception of likeability/rejection and social participation/shy behavior. Like the TRCBC, rather than delete or add items over time out of concern for the age appropriateness of the items, the POCA is made up of items that represent the breadth of common maladaptive behaviors seen either in the child and/or adolescent years. The domains assessed in the POCA are accepting authority (the maladaptive forms being Conduct Problems and Oppositional Defiant Behavior), attention/concentration and readiness for work (or attention/concentration problems), and social participation (or shy behavior). Also assessed are self-regulation (impulsivity), motor control (hyperactivity), and likeability (peer likeability/rejection). Scores on the sub-scales range from 1 to 4, higher scores indicating increased frequencies of behaviors. The coefficient alphas for the subscales were .70 (Conduct Problems), .77 (Oppositional Defiant Behavior), .79 (Attention/Concentration Problems), .62 (Shy Behavior), .47 (Impulsivity), .54 (Hyperactivity), and .78 (Peer Likeability/Rejection). With respect to concurrent validity, parent reports on the Oppositional Defiant sub-scale of the POCA in middle school were significantly associated with the likelihood of a school disciplinary removal. Parent reports on the Attention-Concentration Problems in middle school were a significant predictor of a failing to near failing grade point average.

Diagnostic Interview Schedule for Children-Parent Report (DISC IV-P, Shaffer et al., 2000). The DISC IV-P's Conduct Disorder, MDD, Dysthymic Disorder and Generalized Anxiety Disorder modules were employed in grades 6-9.

MEASURES OF DEVELOPMENTAL & INTERVENTION OUTCOMES: SCHOOL RECORDS

Besides the youth, teacher, school mental health professional, and caregiver assessments, school records including attendance, grades, standardized test scores, disciplinary removals and suspensions (and the associated offenses), special education and school mental health services received, free lunch status, and demographic information were obtained by hand or magnetic data file transfer, both with error and reliability checks.

MEASURES OF MENTAL HEALTH & DRUG TREATMENT SERVICE UTILIZATION

Service Assessment for Children and Adolescent-Parent Report (SACA-P): Parent Report (Horwitz et al., 2001). The SACA-P is a structured interview, designed to obtain information on youth mental health and drug treatment service utilization from parents. Using the SACA-P we obtained data in grades 6-12 on: (1) past and present use of mental health, drug treatment, and educational services, including the setting (e.g., outpatient, inpatient, school-based, primary care, juvenile justice system) and reasons for the services; (2) the nature, frequency, and duration of the services; (3) satisfaction with services received; (4) the nature/type of mental health and drug treatment insurance (if any) and its cost (if any); (5) the out of pocket

costs of the services received, including indirect costs (e.g., loss of time from work) and out of pocket expenses for incidental costs (e.g., travel to the clinic); (6) the amount of time associated with travel to and from the sessions and the time for the session itself; (7) parent's perceptions of the youth's need for mental health and drug treatment services, (8) perceptions of the availability, affordability, accessibility, effectiveness, and cultural relevance of youth mental health and drug treatment services, (9) attitudes towards seeking mental health and drug treatment services, and (10) reasons for not seeking or accessing services in the presence of perceived need, including the race of the mental health or drug treatment professionals.

Service Assessment for Children and Adolescent-Youth Report (SACA-Y): Youth Report (Horwitz et al., 2001). We administered the youth report form of the SACA in grades 10-12.

Service Assessment for Children and Adolescents: Teacher Report. We derived a small subset of questions from the school-based mental health and educational services module of the SACA-P, which were incorporated into the TRCBC (teacher checklist described above). Teachers were asked in grades 6-12 whether a youth is receiving special education services, whether they are in need of such services (regardless of whether they are receiving those services), whether they are receiving and/or are in need of counseling for behavioral problems, attention concentration problems, and anxiety and depression, respectively, and whether they are receiving and/or are in need of medication for these problems.

Service Assessment for Children and Adolescents: School Mental Health Professional Report. Using a variant of the school-based mental health and educational services module of the SACA-P, school psychologist and/or social workers completed a checklist in grades 6-12 which asks whether they provided services to the participating youth and if so, the nature of those services (consultation, assessment, individual and/or group counseling) and the number of contact hours over the current school year.

VARIATION IN DEVELOPMENTAL OUTCOMES & INTERVENTION RESPONSE: MODERATORS AND MEDIATORS OF OUTCOMES--YOUTH SELF-REPORT

Mediators/Moderators of Outcomes: Structured Interview of Parent Management Skills and Practices--Youth Version (SIPMSP, Patterson, 1982). This interview was developed by Patterson and his colleagues as a counterpart to their parent interview. The youth version assesses the parenting constructs integral to the Patterson et al. (1992) model of the development of antisocial behavior and substance use, which were the caregiver disciplinary practices targeted in the family-school partnership program in first grade. The relevant parenting constructs assessed are: parental monitoring, discipline, reinforcement, rejection, problem solving, and involvement in learning and behavior. We employed the childhood version of the SIPMSP in first grade and the adolescent version in grades 6-12.

Mediators/Moderators of Outcomes: Youth Report of Parent and Teacher Reinforcement and Punishment. For the grades 6-12 assessments, we developed a 20-item youth self-report scale to assess parent and teacher response in terms of reinforcement and punishment for academic success and failure and good and bad behavior. There are 10 teacher response items and 10 parent response items. Within the teacher and parent subscales, five items are centered on behavior and 5 on academic achievement. A five-point response scale was employed (1=All of the time, 2=Most times, 3=Sometimes, 4=Hardly ever, 5 = Never). The measurement of youth report of parent and teacher reinforcement and punishment is in keeping with our hypothesis that youth antisocial behavior may be associated with decreased reinforcement and increased punishment from parents and teachers. Moreover, decrements in reinforcement and increased punishment may accelerate initiation and maintenance of drug use.

Mediators/Moderators of Outcomes: Exposure to Deviant Peers & Siblings (Capaldi & Patterson, 1989). Patterson et al. (1992) and colleagues have theorized that drift into a deviant peer group increases the risk for antisocial behavior. They argue that antisocial behavior and substance use are not only modeled but also reinforced by deviant peers. In grades 6-12, we used Capaldi and Patterson's (1989) self-report scale to measure deviant peer association. Youths are asked in forced choice format to indicate how often their peers and/or siblings have engaged in antisocial behavior and/or substance use. Coefficient alphas ranged from .78 to .81 in grades 6-12.

Mediators/Moderators of Outcomes: NSDUH Perceived Availability & Harmfulness of Substance Use (SAMSHA, 2001). In grades 6-12, we used NHSDA subscales to assess the youth's perceptions of the availability and harmfulness of substances, given both have been shown to associated with substance use (Johnston et al., 1995).

Mediators/Moderators of Outcomes: The Monitoring the Future National Survey: Friends Drug Use Subscale (Johnston et al., 1995). The Friends Drug Use subscale from the MFTSNS was used in grades 6-12 to assess the youth's perception of how many of his/her friends (1 = None to 5 = All) used tobacco, alcohol, marijuana, crack, cocaine, heroin, inhalants, and ecstasy.

Mediators/Moderators of Outcomes: The Monitoring the Future National Survey: Attitudes & Beliefs & Social Milieu Subscales (Johnston et al., 1995). Subscales from the MFTSNS were also used in grades 6-12 to assess (1) the youth's attitudes towards drug use, including personal disapproval of drug use, and (2) perceived attitudes of parents and friends towards the youth's drug use. Each of these has been hypothesized to be risk factors for substance use (Johnston et al., 1995).

Mediators/Moderators of Outcomes: Opportunity and Intention to Use. We developed two scales for use in our annual assessments of substance use from grades 6-12 to determine (1) whether and how often the youth was offered substances to use and (2) the youth's intention to use substances if offered in the future. These questions were asked separately for each of the following: tobacco, alcohol, marijuana, crack, cocaine, inhalants, heroin, and ecstasy.

Mediators/Moderators of Outcomes: Perceived Peer Pressure to Engage in Drug Use. We developed a scale for the grades 6-12 assessments, which was designed to assess the youth's perception of the consequences of their refusing to "take/do/use" a substance in response to an offer by a friend. More specifically, for each of the following, tobacco, alcohol, marijuana, crack, cocaine, inhalants, heroin, and ecstasy, the youth were asked, "If a friend or someone in your neighborhood you hang with offered you (type of substance) and you said, "No", how likely would it be that they got down on you or fussed at you, or threaten to stop being friends with you?". Youths rated the likelihood on a 4-point scale (1= Very likely, 2= Likely, 3= Somewhat likely, 4= Not at all likely).

Mediators/Moderators of Outcomes: Neighborhood Environment Scale (NES, Elliott, Huizinga, & Ageton, 1985). The NES consists of 18 true-false items and we have used it in our grades 6-12 assessments to assess exposure to deviant behavior in the neighborhood, including violent crime, drug use and sale, racism, and prejudice. Crum and Anthony (1993) report youths living in neighborhoods in the highest tertile of crime and drug use, as measured on the NES, were 3.8 times more likely to have been offered cocaine than youths in the lowest tertile. Coefficient alpha for the total scale was .80 in grades 6-12.

Mediators/Moderators of Outcomes: Self-Perception Profiles for Adolescents (SPPA, Harter, 1985). Perceived competence is viewed in our developmental epidemiological model of depression as a mediator of the relationship between SAS and PWB. We have used the SPPA to assess perceived competence in grades 6-12. The domains assessed in middle and high school included Scholastic Competence, Social Acceptance, Athletic Competence, Physical Appearance, Behavioral Conduct, Romantic Appeal, and Close Friendship. The SPPA's validity is supported by findings linking scores to

perceived control, mastery motivation, academic achievement, and depression (Connell, 1985; Harter, 1985).

Mediators/Moderators of Outcomes: How Important Are Each of These Things to You? (Harter, 1988). The purpose of this instrument is to determine the saliency of a particular domain to the youth's self-worth. Harter developed this instrument to complement the Self-Perception Profile for Adolescents. For each item the youth is presented with a description of two groups of youths, one of which is described as perceiving a particular domain to be important to their self-worth (e.g., Scholastic Competence), whereas the other group does not. After the youth selects the group most like her/him, s/he is asked to refine their choice further by deciding whether it is "sort of true for me" or "really true for me."

Mediators/Moderators of Outcomes: Control and Contingency Related Beliefs Scale (CCRBS, Weisz et al., 1993). The CCRBS assesses control and contingency related beliefs in three domains of functioning: academic, social, and behavioral. Perceived lack of control over important outcomes is central to our model of variation in intervention response in terms of psychological well-being. We have used the CCRBS in grades 6-12. In grade 8, we expanded the CCRBS to include the romantic relations and athletic domains. Our choice of the CCRBS scale was grounded in the research of Weisz and colleagues (Weisz et al., 1993), which has demonstrated not only a relationship between depressive symptoms and one type of control-related belief (low levels of perceived personal competence) in children and adolescents, but with perceived non-contingency of outcomes as well. Weisz et al. (1993)'s findings suggested that children and adolescents and may be susceptible to both "personal helplessness" and "universal helplessness" forms of depression. Youth respond on a 4-point scale for each item (not at all true to very true). The alphas for the total control and contingency subscales were .80 and .76, respectively, in grades 6-9.

The Child & Adolescent Perfectionism Scale (CAPS; Flett et al., 2000). The CAPS is a 22-item self-report measure of self-oriented and socially prescribed perfectionism that we have used in grades 6-12. Youth must rate the extent of their agreement with each item on five point scales with "1" representing "false--not at all true of me" and "5" representing very true of me. Twelve items measure self-oriented perfectionism and ten items measure socially prescribed perfectionism. We hypothesize that high levels of perfectionism may serve to produce decrements in psychological well-being and as such contribute to variation in the impact of the interventions on both social adaptation and psychological well-being

Mediators/Moderators of Outcomes: The Life Events Questionnaire Adolescent Versions (LEQ-C & LEQ-A; adapted from Coddington, 1972). The LEQ-A is a checklist of potentially stressful life events that children and adolescents may experience, which we have used in grades 6-12. We have modified the LEQ-A to include a broader range of events relevant to adolescence and family-related stressors, adding items from the Adolescent Perceived Events Scale (APES) (Compas et al., 1985) and the Adolescent-Family Inventory of Life Events and Changes (A-FILE) (McCubbin et al., 1982). We have also modified the LEQ-A to allow for a test of the "cost of caring" hypothesis, regarding gender differences in the prevalence of depression (Kessler et al., 1984). That is, we ask the youth to report on three sets of events in accord with Gove et al. (1993): (1) the events they experienced directly, (2) events experienced by family members, and (3) events experienced by friends. Consistent with our developmental epidemiologic model of depression, the data on life events will allow us to test the hypothesis that such events may interfere with the youth's ability to meet social task demands, which, in turn, may increase the likelihood of decrements in psychological well-being.

Mediators/Moderators of Outcomes: The Racism and Life Experiences Scales (Harrell, 1997). The RLES was used in grades 6-12 to assess the frequency the youth experiences racism or negative events

associated with his or her race within the last year. We hypothesize that racial discrimination may result in decrements in psychological-well being and social adaptational status. The items the youth respond to on the RLES include: "How often have you been ignored, overlooked, or not given service in a restaurant, store, etc?"; How often have you been treated rudely or with disrespect because of your race. Youths respond on a five-point frequency scale (1= Less than once a year, 2= A few times a year, 3= About once a month, 4= A few times a month, 5= Once a week or more). The overall alpha for this 12-item scale was .85.

Mediators/Moderators of Outcomes: Children's Report of Violence Exposure (CREV, Cooley-Quille et al, 1995). The CREV is a self-report instrument that was used in grades 6-12 to assess the frequency of exposure to violence. Exposure to violence through four modes is assessed, but only the violence directly witnessed and victimization (violence directly/personally experienced) subscales were employed. In addition, we limited recall to the last year. Finally, we also added categories for violence exposure experienced by family members and friends. The CREV has proven to be highly reliable in urban African-American youth and to be related to psychological well-being (Cooley-Quille et al, 1995).

Mediators/Moderators of Outcomes: Behavioral Inhibition System/Behavioral Activation System Scales (BIS/BAS, Carver & White, 1994). Reward dominant response style was measured in grade 9 using the BIS/BAS scales developed by Carver & White (1994). Measurement of reward dominance is consistent with the hypothesis, based on Gray's (1982) psychobiological theory personality, that the rejected, antisocial youth with an overactive Behavioral Activation System (BAS) and an underactive Behavioral Inhibition System (BIS), that is, a *reward dominant response style*, will be at greater risk for substance use (see Sections 2.3, 2.6 & 4.4). All BIS/BAS items are written in a Likert-type format, with responses made on a 4-point response scale with 1 indicating strong agreement and 4 indicating strong disagreement (with no neutral response). The BAS sensitivity items were created to reflect: strong pursuit of appetitive goals ("I go out of my way to get things I want"), responsiveness to reward ("When I get something I want I feel excited and energized"), and a tendency to seek out new potentially rewarding experiences ("I'm always willing to try something new if I think it will be fun"), or a tendency to act quickly in pursuit of desired goals ("I often act on the spur of the moment"). The BAS scale is made up of three sub-scales. The Drive sub-scale is made of items pertaining to the persistent pursuit of desired goals. The Fun Seeking sub-scale is made of items assessing both a desire for new rewards and a willingness to approach a potentially rewarding event on the spur of the moment. The Reward Responsiveness sub-scale contains items that center on positive responses to the occurrence or anticipation of reward. The BIS sensitivity scale items were designed to reflect a concern over the possibility of a bad occurrence ("I worry about making mistakes") or a sensitivity to such events when they do occur ("Criticism or scolding hurts me quite a bit").

VARIATION IN DEVELOPMENTAL OUTCOMES & INTERVENTION RESPONSE: MODERATORS/MEDIATORS OF OUTCOMES--CAREGIVER REPORT

Mediators/Moderators of Outcomes: Structured Interview of Parent Management Skills and Practices--Parent Version (SIPMSP, Patterson, 1982). The SIPMSP was designed to assess the major constructs included in Patterson et al.'s (1992) model of the development of antisocial behavior and substance use in children and adolescents. That is, the SIPMSP assesses family processes targeted for change in the parent discipline component of the family-school partnership intervention (FSP). As in the youth version, the items assess (1) parental monitoring, (2) discipline, (3) reinforcement, (4) rejection, and (5) problem solving. Parents are asked to respond to questions regarding their

disciplinary practices in open ended and forced choice response formats. In collaboration with the Oregon Social Learning Center Prevention Center, we modified the SIPMSP to include items assessing parent-teacher communication and involvement and support for the youth's academic achievement, which were targets of the FSP family learning component. The adolescent version of the SIPMSP was used in grades 6-12.

Life Change Events from the Health and Daily Living Form (HDL). Items were adapted from the life change events indices from the Health and Daily Living Form (HDL) (Moos, Cronkite, Billings, & Finney, 1987) to assess parent/respondent life stresses in grades 6-12. The life change indices tapped a variety of negative life events, including deaths in the family, caregiver divorces/separations/break-ups, and the presence of a family member(s), with financial, legal, and health problems—mental, drug and physical.

National Health and Nutrition Examination Survey III: Data Collection Forms (The NHNES, 1990). The NHNES interviews were developed for use in the ongoing National Center for Health Statistics studies of adult and youth health status, practices, and service utilization. Screening items from the youth and adult short forms of the interview were used in grades 6-12. These items included an overall appraisal of current health status and the extent to which any disabling health conditions are present. These items allow us to model how family and youth physical health impact youth psychological well-being and the parenting practices implicated in the development of aggressive and shy behaviors, concentration problems, and poor achievement.

Household Structure and Demographics. A number of family sociodemographic characteristics will also be obtained including: parental education, occupational status, income (including all sources), ethnicity, size of family household, and ages and relationships of household members.

VARIATION IN INTERVENTION RESPONSE & DEVELOPMENTAL OUTCOMES: MODERATORS/MEDIATORS OF OUTCOMES--CHARACTERISTICS OF THE NEIGHBORHOOD AND SCHOOL SOCIAL FIELDS

Census Bureau data and police and school records were used to derive salient ecological variables. More specifically, census information was gathered to characterize youth neighborhoods in terms of (un)employment, poverty, and education levels, household size and structure, type of housing, population density, and ethnic composition. School records were used to characterize the schools the participating youth attended with respect to the overall prevalence of aggressive/disruptive behavior, disciplinary actions for the use and sale of drugs, and poor academic achievement. Additional data were gathered on average class sizes, attendance, the percentage of students receiving free or reduced lunch (a proxy for poverty status), and the ethnic make-up of the school population.

Table 1. The Existing Data Set: Constructs & Measures Grades 6-12

| CONSTRUCT | METH OD ¹ | GRADE | CITATION |
|---|-------------------------|-----------------------------|--|
| SOCIAL ADAPTATIONAL STATUS | | | |
| Conduct Problems/Oppositional Defiant Behavior Social Contact/Shy Behavior | T,P T,P | T = 6-12 P = 6-9 | <ul style="list-style-type: none"> • Teacher: Teacher Observation of Classroom Adaptation-Revised (TOCA-R): Werthamer-Larsson, Kellam, & Wheeler (1991) • Parent: Parent Observation of Child Adaptation (POCA): Ialongo, Edelsohn, Werthamer-Larsson, Crockett, & Kellam (1989) |
| Attention/Concentration Problems Hyperactivity Impulsivity | T,P T,P T,P | | |
| Likeability/Rejection | T,P | | |
| Conduct Disorder | Y, P | P = 6-9 Y = 6-12 | |
| Tobacco, Alcohol, Marijuana, Crack, Cocaine, Heroin, Inhalants, Ecstasy, Hallucinogens, Amphetamines, Narcotics, & Tranquilizers: Ever Offered Intent To Use Ever Use Age At First Use Frequency Of Use Last Use Dependence/Impairment | Y | Y = 6-12 | <ul style="list-style-type: none"> • National Survey on Drug Use & Health (NSDUH): SAMHSA (2001) |
| Gambling | Y | Y = 11 | <ul style="list-style-type: none"> • The South Oaks Gambling Screen—Revised for Adolescents (Winters et al., 1993) |
| Reading Math | Y | Y = 6-10 ² 12 | <ul style="list-style-type: none"> • Kaufman Test of Educational Achievement (K-TEA): Kaufman & Kaufman (1998) |
| Grades Attendance Standardized Achievement Special Education Disciplinary Removals Free Lunch Status Grade Retention Dropout/Graduation | School Record s | 6-12 | |

| | | | |
|--|---------------------------------|------------------------------|---|
| Criminal Convictions Arrests Police Contact | Police & Court Records | K-12 | |
| PSYCHOLOGICAL WELL-BEING | | | |
| Anxious And Depressive Symptoms | Y | Y = 6-12 | • Baltimore How I Feel (BHIF): Ialongo et al. (1989) Youth Version |
| Major Depression Dysthymia | Y, P | Y = 6-12 P = 6-9 | • DISC-P; DISC-Y Major Depression & Dysthymia Modules: Shaffer et al. (2000) |
| Generalized Anxiety Disorder | P | P = 6-9 | • DISC-P Generalized Anxiety Disorder Module: Shaffer et al. (2000) |
| MEDIATORS & MODERATORS | | | |
| Parent Discipline Practices; Monitoring; Reinforcement; Rejection, Problem Solving, Parent-Teacher Communication And Support For Learning | Y, P | Y = 6- 12 P = 6- 12 | • Structured Interview of Parent Management Skills & Practices: Capaldi & Patterson (1989) |

¹ T=Teacher; P=Parent; Y=Youth.

² Math subtest not administered until grade 7

Table 1 continued. The Existing Data Set: Constructs & Measures Grades 6-12

| CONSTRUCT | METH OD ¹ | GRAD E | CITATION |
|--|-------------------------|-----------|---|
| MEDIATORS & MODERATORS - CONTINUED | | | |
| Parent And Teacher Reinforcement And Punishment : Academic and Behavioral Domains | Y | Y = 6-12 | |
| Youth's Perception Of Parents And Friends Reaction If They Used Drugs Youth's Attitudes Toward Friends Drug Use Youth's Report Of Friends Drug Use Youth's Report Of Risk And Availability Of Drugs Opportunity and Intention to Use Perceived Peer Pressure to Engage in Drug Use | Y | Y = 6-12 | <ul style="list-style-type: none"> • Monitoring the Future: Johnson, O'Malley, & Bachman (1995) • National Survey on Drug Use & Health (NSDUH): SAMHSA (2001) |
| Youth's Report Of Affiliation With Deviant Peers | Y | Y = 6-12 | <ul style="list-style-type: none"> • Exposure to Deviant Peers: Capaldi & Patterson (1989) |
| <u>Perception Of Neighborhood:</u> Drug Use; Violent Crime; Poverty | Y | Y = 6-12 | <ul style="list-style-type: none"> • Neighborhood Environment Scale (NES): Elliott, Huizinga, & Ageton (1985) |
| Youth's Self Report: Perceived Competence: Scholastic Competence Close Friendships Physical Attractiveness Social Acceptance Romantic Relationships Athletic Competence Behavioral Conduct Global Self-Worth Salience: Scholastic Competence Close Friendships Physical Attractiveness Social Acceptance Romantic Relationships Athletic Competence Behavioral Conduct Global Self-Worth | Y | Y = 6-12 | <ul style="list-style-type: none"> • Self-Perception Profile for Adolescents: Harter (1988) • How Important are These to How You Feel about Yourself as a Person: Harter (1988) |
| <u>Perfectionism:</u> Self Perception, Other's Perceptions | Y | Y = 6-12 | <ul style="list-style-type: none"> • Child and Adolescent Perfectionism Scale (CAPS): Hewitt & Flett (1991) |

| | | | |
|---|-----|----------|--|
| Control and Contingency: Academic; Social; Behavioral, Related Beliefs, Romantic Relations, Athletics | Y | Y = 6-12 | • Control and Contingency Related Beliefs: Weisz et al (1993) |
| Negative Experience Associated With Race | Y | Y = 6-12 | • The Racism and Life Experiences Scales: Harrell (1997) |
| Social Support Network Quality of Social Support | Y | Y = 6-12 | • Arizona Social Support Interview Schedule (Barrera, 1981) |
| Major Stressful Life Events Experienced By: Youth Family Members Close Friends | Y | Y = 6-12 | • The Life Events Questionnaire: Coddington (1972) • Adolescent Perceived Events Scale: Compass, Davis, Glen, & Forsythe (1985) • Adolescent-Family Inventory of Life Changes: McCubbin & Patterson (1983) |
| Parent and Child Physical Health Family Income | P | P = 6-12 | • National Health and Nutrition Examination Survey (NHNES): NCHS (1990) |
| Height, Weight, Physical Attractiveness | OBS | Y = 6-12 | • Interviewer Observations |

¹T=Teacher; P=Parent; Y=Youth; OBS = Interviewer Observation; SMHP=School-Based Mental Health Professional

Table 1 continued. The Existing Data Set: Constructs & Measures Grades 6-12

| CONSTRUCT | METH OD ¹ | GRADE | CITATION |
|--|---|-----------------------------------|--|
| MEDIATORS & MODERATORS - CONTINUED | | | |
| Community Profiles and Characteristics: Unemployment Poverty Education Levels Household Size And Structure Type Of Housing Population Density Ethnic Composition Nature And Rates Of Crime | Census, Police & Court Records | 6-12 | |
| Children's Report of Violence Exposure | Y | 6-12 | <ul style="list-style-type: none"> • CREV, Cooley-Quille et al, 1995 |
| Behavioral Inhibition System/Behavioral Activation System Scales | Y | 9 | <ul style="list-style-type: none"> • BIS/BAS, Carver & White, 1994 |
| SERVICES NEED AND USE | | | |
| Need for Services for Emotional and Behavioral Problems | P, T, SMHP | P = 6-12 T = 6-12 SMHP=6-12 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, in press) |
| Use Of Services For Emotional And Behavioral Problems | P, T, SMHP | P = 6-12 T = 6-12 SMHP=6-12 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, in press) |
| Need for Special Education Services | P, T | P = 6-12 T = 6-12 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, in press) |
| Use Of Special Education Services | P, T | P = 6-12 T = 6-12 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, in press) |
| Youth Mental Health Service Utilization | Y, State & Local Records | Y = 10-12 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, in press) |
| Drug Treatment Service Utilization | Y, State & Local Records | Y = 10-12 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, in press) |

¹T=Teacher; P=Parent; Y=Youth; OBS = Interviewer Observation; SMHP=School-Based Mental Health Professional

DESCRIPTION OF THE EXISTING DATA SET, AGE 19-22

5.2.4.1 DEVELOPMENTAL & INTERVENTION OUTCOMES: YOUNG ADULT SELF-REPORT

Young Adult Educational History. We have collected data on academic performance and educational attainment on a yearly basis since grade kindergarten and will continue to do so as part of the age 22-25 assessments. In addition to the data collected from any school records (post-secondary, college or vocational), we will obtain directly from the participant the amount of education they have completed (primary, secondary, post-secondary, including vocational training), number of grade retentions, and their current grades (if they are in school,—attending college or vocational school).

Young Adult Employment History. Since grade 11, we have asked the participants to report on their employment history, including the number and types of jobs held, length of time employed, reasons for leaving, rate of pay and if they are unemployed whether they are actively seeking work.

Young Adult Dating, Marital, Intimate Relationship History. Since grade 11 (or age 16-17), we have obtained a history of the participant's intimate/romantic relationships, including dating, marriages, divorces, and separations. We ask the youth to quantify the number of the relationships s/he has been involved in and the length of time involved in these relationships. In terms of dating, we also ask about the types of relationships they have been involved in (one night stands, casually dating, regularly dating, only seeing one person, commitment to marriage).

Diagnostic Interview Schedule for Children-IV (C-DISC-IV, Shaffer et al., 2000). The C-DISC-IV's MDD and Dysthymic Disorder modules have been employed from grade 6 through the ongoing age ~ 21 assessments, whereas the Generalized Anxiety Disorder, Social Phobia, and Panic Disorder modules were first used in the age ~ 19 assessment. We plan to continue using these modules in the ages 22-25 assessments. The C-DISC Conduct Disorder module was employed from grade 6 through age 18 or approximately grade 12. At the age ~ 19 assessment, we went with the adult version of the C-DISC IV, the Diagnostic Interview Schedule IV (DIS IV, Robbins et al., 2000) (see below) to assess Antisocial Personality Disorder (ASPD) and last year antisocial behavior. The reason for using the DIS IV is that ASPD is not assessed by the C-DISC IV. The DISC-IV is a fully structured interview that generates a Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV, American Psychiatric Association, 1994) diagnosis as well as the number of diagnostic criteria met and a symptom count for each disorder. The C-DISC IV yields lifetime, last year, and last month diagnoses. Consistent with the DSM-IV, the DISC also generates impairment indices when diagnostic criteria are met for disorder. The impairment criteria are based on the respondent's level of functioning in the social/friends, school, work, and home/family spheres of functioning. The impairment indices are generated from responses to questions relevant to the respondent's level of functioning in each of these areas. The DISC-IV specifies the exact wording and sequence of questions and provides a complete set of categories for classifying respondents' replies. It is designed to be administered by lay interviewers. Data on the earlier versions of the DISC (DISC 2.1, DISC 2.3), suggest adequate test-retest reliability (Jensen et al., 1995) and validity (Scwab-Stone et al., 1996). We have used a computer algorithm developed by Shaffer et al. (2000) to derive the diagnoses and the associated impairment levels. Our decision to continue using the DISC-IV to assess MDD/Dysthymia and the anxiety disorders through age ~ 25 was based on the concern that switching to the DIS IV might introduce measurement error into our analytic models of the growth of depression and anxiety symptoms and disorders from grade 6 to age 25. The fact that the C-DISC IV and DIS IV assess the same DSM IV diagnostic criteria for MDD/Dysthymia and the anxiety disorders provides further support for continuing with C-DISC IV through age 25.

Note that the following measures are administered as part of our self-administered, computerized interview component.

The Diagnostic Interview Schedule (DIS) Version IV (DIS IV, Robins et al., 2000). Like the C-DISC IV, the DIS IV is a fully structured questionnaire designed to ascertain the presence or absence of major psychiatric disorders as outlined in the Diagnostic and Statistical Manual of Mental Disorders (4th ed., [DSM-IV]; American Psychiatric Association [APA], 1994). The DIS was originally developed for the National Institute of Mental Health's Epidemiologic Catchment Area study (Robins & Regier, 1991), which required a comprehensive diagnostic instrument that could be administered either by lay interviewers or clinicians in a large-scale, epidemiological study of mental disorders. As noted above, beginning with the age ~ 19 interview, we have used the Antisocial Personality and lifetime history of Conduct Disorder modules to determine the presence of Antisocial Personality Disorder. Compton & Cottler (2003) report test-retest reliability/agreement in the fair to good range for ASPD (kappa = .49) and CD (kappa = .51).

Substance Use: (Monitoring the Future National Survey, MTFNS, Johnston et al., 1995; National Survey on Drug Use & Health, NSDUH, Substance Abuse Mental Health Services Administration, SAMSHA, 2004). Drug and alcohol use, abuse, and dependence will be assessed using the same computer self-administered interview component used in the grade 6 – through the ongoing age ~ 21 assessments. Use of the following substances is assessed: tobacco, alcohol, marijuana, cocaine, crack, heroin, ecstasy, inhalants, hallucinogens, amphetamines, barbiturates, tranquilizers, and narcotics. Frequency of substance use (lifetime, last year, last month, last week) was and will continue to be measured using questions from the Monitoring the Future National Survey (MTFNS, Johnston et al., 1995). The drug abuse and dependence sub-scales from the National Survey on Drug Use & Health (NSDUH, Substance Abuse, Mental Health Services Administration, SAMSHA, 2004) are also administered for each of the substances assessed. The NSDUH abuse and dependence items are designed to allow generation of Diagnostic and Statistical Manual-IV (DSM-IV, American Psychiatric Association, 1994) diagnoses of abuse and drug dependence.

Revised Conflict Tactics Scales (CTS2). (Straus et al., 1996). We used the revised CTS2 in our age ~ 20 and ongoing age ~ 21 assessments to measure the use of negotiation and psychological and physical attacks on a partner in a marital, cohabiting, or dating relationship during the last year. We plan to continue using the CTS2 in the age 22-25 assessments as a measure of social adaptation to the romantic relations and family of procreation social fields. As described by Straus et al. (1996), the CTS2 has additional items to enhance content validity and reliability; revised wording to increase clarity and specificity; better differentiation between minor and severe levels of each scale; new scales to measure sexual coercion and physical injury; and a new format to simplify administration and reduce response sets. Straus et al. (1996) report reliability ranges from .79 to .95. Straus et al. (1996) also present preliminary evidence of construct validity.

History of Sexual Behavior (Lifetime & Last Month). As was the case in the ages ~ 19 through ~ 21 interviews, young adults will be asked to report on number of sexual partners, exchange of sex for money or drugs, pre-adolescent sexual behavior (to obtain a proxy indicator of prior sexual abuse), forced (or presumed forced) intercourse, and history of condom use. Participants are then asked about the specific types of sexual activities they engaged in during the last month (vaginal, oral and anal intercourse), the number of such episodes of each type of sexual activity, and whether a condom was used for each encounter. The type of partner—a regular partner (like a boyfriend or girlfriend), a casual partner (someone you've had sex with before, but not regularly) or a new partner (someone you had never met before and had sex with for the very first time)—is elicited for each sexual episode. Finally,

the participants are asked whether they or their partners had been drinking or using drugs prior to the sexual episode.

History of STDs (Lifetime & Last Year). Participants will also be asked as was the case in the ages ~ 19 through ~ 21 interviews to report whether they have ever had an STD as confirmed by a medical doctor or health care provider. A list of common STDs is read to the participant, which includes HIV/AIDS, syphilis, gonorrhea, herpes, and genital warts and a number of other STDs. For all yes responses, the participants are then asked whether they have had that STD in the last year. An identical format is used to ascertain lifetime and last year reports of a wide range of symptoms of STDs (e.g., lumps, warts, or unusual swelling around the anus and vagina).

Pregnancy History. Participants will also be asked to report on the number of pregnancies, miscarriages, abortions, still births, live births they personally experienced (if a female) or their partner had experienced (as result of sexual activity with them, if male), whether the pregnancies were planned, the young adult's age at each event, and the number of the children the young adult is currently caring for. We begin collecting these data in grade 12.

Pathological Gambling Diagnostic Scale (DSM-IV 10 items) (Gambling Treatment Outcome Monitoring System, Stinchfield et al., 2001). The DSM-IV (APA, 1994) diagnostic criteria for pathological gambling are being assessed at age 21 with a set of items developed for the GAMTOMS (Stinchfield et al., 2001). We plan to continue to do so annually through age 25. Each item operationalizes the ten DSM-IV pathological gambling diagnostic criteria by paraphrasing the diagnostic criteria into questions. In terms of validity, the DSM-IV diagnosis of Pathological Gambling yielded the following classification accuracy indices using group membership as the criterion (clinical versus non-clinical): base rate=.20; hit rate=.96; sensitivity=.96; specificity=.95; false positive rate=.01; and false negative rate=.14 (Stinchfield et al., 2001; Stinchfield, 2003, Stinchfield et al., 2005).

5.2.4.2 Measures of Developmental & Intervention Outcomes: Police, Court, Incarceration, & Child Medical Records

Besides young adult self-report, police, court and incarceration records will also be obtained to determine the frequency and nature of police contacts, adjudications and incarcerations, including ones for domestic violence and child abuse/neglect. In addition, we will seek consent to obtain medical records, including pre-natal care, well-baby child visits, immunization records in the case of young adults who are or become parents during the fielding period, The data gained on domestic violence, child abuse/neglect, and child medical care will be used as indicators of social adaptation to the demands of the romantic relations and family of procreation social fields.

5.2.4.3 MEASURES OF MENTAL HEALTH & DRUG TREATMENT SERVICE UTILIZATION

Service Assessment for Children and Adolescent-Youth Report (SACA-Y): (Horwitz et al., 2001). The SACA-Y is a structured interview, designed to obtain information on youth mental health and drug treatment service utilization. We used the SACA-Parent report version in grades 6-12, but moved to the SACA-Y for the age ~ 19 through ~21 assessments and plan to continue using the SACA-Y in the age 21-24 assessments. The SACA-Y provides data on (1) past and present use of mental health and drug treatment services, including the setting (e.g., outpatient, inpatient, juvenile and adult justice system) and reasons for the services; (2) the nature, frequency, and duration of the services; (3) satisfaction with services received; (4) the nature/type of mental health and drug treatment insurance (if any) and its cost (if any); (5) the costs of the services received, including indirect costs (e.g., loss of time from work) and out of pocket expenses for incidental costs (e.g., travel to the clinic); (6) the amount of time associated with travel to and from the sessions and the time for the session itself; (7)

the young adult's perceptions of the need for mental health and drug treatment services, (8) perceptions of the availability, affordability, accessibility, effectiveness, and cultural relevance of mental health and drug treatment services, (9) attitudes towards seeking mental health and drug treatment services, and (10) reasons for not seeking or accessing services in the presence of perceived need, including the race of the mental health or drug treatment professionals.

Local and State Mental Health and Drug Treatment Services Records. Record searches will be used to augment young adult report of youth mental health and drug treatment service use and the costs of such services. Serving to facilitate our efforts in obtaining data on mental health use and costs is the fact that the state of Maryland has recently set up a central agency for paying out all public mental health and drug treatment benefits. Moreover, state of Maryland Medicaid records can also be searched "online" for mental health and drug treatment services claims and their costs. For privately insured young adults, we will seek their consent to obtain claims data from their respective insurers and the costs of the services provided.

5.2.4.4 VARIATION IN DEVELOPMENTAL & INTERVENTION OUTCOMES:

MODERATORS AND MEDIATORS OF OUTCOMES—YOUNG ADULT SELF-REPORT

Exposure to Deviant Peers (Capaldi & Patterson, 1989). As elaborated earlier, Patterson et al. (1992) and colleagues have theorized that drift into a deviant peer group increases the risk for antisocial behavior. They argue that antisocial behavior and substance use are not only modeled but also reinforced by deviant peers. We have successfully used Capaldi and Patterson's (1989) self-report scale in our grade 6 through age ~21 assessments and will continue to do so in our age 22-25 annual assessments, given we expect that peer antisocial behavior will remain an important factor in young adult antisocial behavior. Participants are asked in forced choice format to indicate how often their peers have engaged in antisocial behavior. Coefficient alphas ranged from .78 to .81 during the middle and high school years. We are adding 3 questions to the DPA to determine whether the participant is currently or was a member of a gang within the last year. In accord with Esbensen and colleagues (1993, 1996, 2002), participants will be asked if they have been a gang member in the past year and, if yes, whether they were are a current gang member. Also, consistent with Esbensen and colleagues (2002), we will ask those participants who report being a gang member what the name of gang is that they belong(ed) to. Esbensen and colleagues report that that self-nomination for gang membership "is a particularly robust measure of gang membership capable of distinguishing gang from nongang youth" (Esbensen et al., 2001, p. 124).

Neighborhood Environment Scale (NES, Elliott et al, 1985). The NES consists of 18 true-false items which are designed to assess the young adult's perceptions of deviant behavior in their neighborhood, including violent crime, drug use and sale, racism, and prejudice. Crum and Anthony (1993) report youths living in neighborhoods in the highest tertile of crime and drug use, as measured on the NES, were 3.8 times more likely to have been offered cocaine than youths in the lowest tertile. Coefficient alpha for the total scale was at or above .80 in our grade 6 through age ~ 20 assessments.

The Adult Self-Perception Profile (ASPP, Messer and Harter (1986). We began using the ASPP as part of the age ~ 19 interview, after using the adolescent version of the ASPP in grades 6-12 (Harter, 1988). Both the adult and adolescent versions of the SPP use the same response format and overlap in terms of a number of the domains assessed, including competence in the sociability (social interactions), athletic (sports and fitness), intellectual (intellectual capabilities), physical attractiveness, and intimate relations (ability to maintain close and fulfilling relationships) domains, along with global self-worth. Given our study participants are transitioning from the developmentally relevant social fields of adolescence to those of young adulthood, we believed it important to also assess the adult relevant domains featured in the ASPP. Accordingly, since age ~ 19, we have been using the ASPP to

not only assess competence in the same domains assessed in adolescence (sociability, athletic, intellectual, physical attractiveness, intimate relationships and global self-worth), but are also using it to assess competence in the following adult domains: *Job Competence*, *Nurturance* (the ability to care for others); *Adequacy as a Provider* (ability to meet the material needs of significant others); and *Household Management* (ability to run an organized household). Donnellan et al. (2007) report Cronbach alphas ranging from .79 (nurturance) to .87 (Global Self-Worth) for the ASPP domains and one-year test-reliability coefficients ranging from .48 (Job Competence) to .79 (Athletic Competence). As described in Section 2.5, we hypothesize that low levels of perceived competence in the developmentally relevant domains of young adulthood would be associated with an increased risk of depression and, accordingly, a poorer developmental and intervention outcome.

How Important Are Each of These Things to You? (Messer & Harter, 1986). The purpose of this instrument is to determine the saliency of a particular domain to the young adult's self-worth (see Section 2.7). Harter developed this instrument to complement the Self-Perception Profile for Adults. For each item the young adult is presented with a description of two groups of youths, one of which is described as perceiving a particular domain to be important to their self-worth (e.g., Work), whereas the other group does not. After the young adult selects the group most like her/him, s/he is asked to refine their choice further by deciding whether it is "sort of true for me" or "really true for me." Measurement of the saliency of a particular domain is consistent with social cognitive theories of depression, wherein the individual is more likely to experience emotional distress as a result of perceiving incompetence in highly salient competence domains.

Control and Contingency Related Beliefs Scale (CCRBS, Weisz et al., 2001). The original CCRBS assessed control and contingency related beliefs in three domains of functioning: academic, social, and behavioral. Beginning in grade 9 we expanded the domains assessed to the athletic, physical attractiveness and romantic relations domains. We further expanded the CCRBS to include the work domain as part of the age ~ 19 interview and plan to continue to use the CCRBS through age 25. Perceived lack of control over important outcomes is central to our model of variation in intervention response in terms of psychological well-being. More specifically, the less likely young adults perceive control over important outcomes (e.g. success in the work social field), the more likely they are to experience decrements in psychological well-being. Our choice of the CCRBS scale was grounded in the research of Weisz and colleagues (e.g., Weisz et al., 1993), which has demonstrated not only a relationship between depressive symptoms and one type of control-related belief (low levels of perceived personal competence), but with perceived non-contingency of outcomes as well. Young adults respond on a 4-point scale for each item (not at all true to very true). The alphas for the total control and contingency subscales ranged from .76 to .80, in the grade 6 through age ~ 20 assessments.

Multidimensional Perfectionism Scale (MPS, Hewitt & Flett, 1991). The MPS is composed of three subscales designed to measure self-oriented perfectionism (SOP) (e.g., *One of my goals is to be perfect in everything I do*), other-oriented perfectionism (OOP) (e.g., *I have high expectations for the people who are important to me*), and socially prescribed perfectionism (SPP) (e.g. *My family expects me to be perfect*). Participants indicate their response on a 7-point scale ranging from 1 (*disagree*) to 7 (*agree*). Higher scores indicate an increased level of perfectionism. Hewitt et al. (1991) reports the perfectionism dimensions proved stable over time, with 3-month test-retest correlations for SOP, OOP, and SPP of .69, .66, and .60, respectively (Hewitt et al., 1991). Coefficient alphas for the MPS subscales typically range from .70 to .95 (e.g., Hewitt & Flett, 1991). Studies have also documented the multidimensionality, predictive validity, convergent validity, incremental validity, and discriminant validity of the MPS in psychiatric patients and university students (e.g., Hewitt & Flett, 1991; Hewitt et al., 1991). We began using the MPS at the age ~ 19 interview, are currently using it in the age ~ 21

interview, and plan to use in the age 22-25 interviews. The rationale for our measurement of perfectionism is described in Section 2.5. Essentially, we hypothesize that perfectionism is one of the individual level characteristics/factors that may serve to increase the risk for depression and therefore moderate developmental and intervention outcomes. We used the Child & Adolescent Perfectionism Scale (CAPS; Flett et al., 2000) from grades 6-12 (see Lambert et al., 2004; McCreary et al., 2004), which is based on the MPS. McCreary et al. (2004) reported a robust predictive relationship between socially prescribed perfectionism and internalizing symptoms, especially depression, in African-American males, whereas self-oriented striving perfectionism predicted future depression in African-American females. Our decision to move to the MPS at age ~ 19 reflected the concern that we capture other-oriented perfectionism as well as socially prescribed perfectionism and self-oriented perfectionism, which are both included in the MPS and the CAPS. The need to capture other-oriented perfectionism is consistent with the transition to the romantic relations and family of procreation social fields in the young adult years.

The Life Events Questionnaire Adolescent Version (LEQ-A; adapted from Coddington, 1972). The LEQ-A is a checklist of potentially stressful life events that adolescents may experience, which we have used in the grades 6 through age ~ 21 assessments. Beginning with age ~ 19 assessments, we expanded the modified the LEQ-A to include a broader range of developmentally relevant events, drawing on items from the Life Change Events subscale from the Health and Daily Living Form (HDL) (Moos et al., 1987), which is designed to assess a variety of negative and positive life events among adults, including job loss and the inability to find a job. We have also modified the LEQ-A to allow for a test of the "cost of caring" hypothesis, regarding gender differences in the prevalence of depression (Kessler et al., 1984). That is, we ask the young adults to report on three sets of events in accord with Gove et al. (1993): (1) the events they experienced directly, (2) events experienced by family members, and (3) events experienced by friends. Consistent with our developmental epidemiologic model of depression, the data on life events will allow us to test the hypothesis that such events may interfere with the young adult's ability to meet social task demands, which, in turn, may increase the likelihood of decrements in psychological well-being.

The Quality of Relationships Inventory (ORI, Pierce, 1996). We have used the QRI in the ages ~20 and ~ 21 assessments and we plan to continue using it in our age 22-25 assessments. We are using the QRI to assess participants' perceived relations with romantic partners and their parents/caregivers. The QRI yields three scores: (a) social support, (b) depth, and (c) conflict and has been found to have high internal consistency, test-retest reliability, and high levels of construct, convergent, and discriminate validity (Pierce, 1996; Pierce et al., 1997) with European American, African American and Latino adolescent/young adult couples (Florsheim et al., 2003). The QRI consists of questions such as "To what extent can you count on this person to help if you were in a crisis situation, even if he or she had to go out of his or her way to help you?" (Social Support), "How significant is this relationship in your life?" (Depth), "To what extent can you trust this person not to hurt your feelings?" (Conflict). As described in Section 2.6, we hypothesize that parent/caregiver and romantic relationships characterized by a high levels of conflict and low levels of social support will increase the risk for anxiety and depression and, as a result, have a negative impact on developmental and intervention outcomes.

The Racism and Life Experiences Scales (Harrell, 1997). The RLES was used in our grades 6 through age ~ 21 annual assessments to assess the participants' perception of the number of times they were the victims of racism or negative events because of their race within the last year. As elaborated upon earlier, we hypothesize that racial discrimination may result in decrements in psychological-well being and social adaptational status. The items the young adults respond to on the RLES include: "How often

have you been ignored, overlooked, or not given service in a restaurant, store, etc?"; How often have you been treated rudely or with disrespect because of your race. Youths respond on a five-point frequency scale (1= Less than once a year, 2= A few times a year, 3= About once a month, 4= A few times a month, 5= Once a week or more). The overall alpha for this 12-item scale was .85. Beginning with the age ~ 19 assessment, we expanded the RLES to include items developed by Williams et al. (1997) to assess major forms of discrimination in the school, work, health care, and financial domains, including "discouraged by a teacher or school counselor from seeking higher education", "not hired for a job", "denied or received poor medical or mental health care" and "denied a loan", respectively". This is consistent with our goal of understanding the role of perceived racial discrimination in variation in intervention and developmental outcomes.

Children's Report of Violence Exposure (CREV, Cooley-Quille et al, 1995). The CREV is a self-report instrument designed to an individual's exposure to violence. We have used the CREV in our grade 6 through age ~ 21 assessments. Only those subscales assessing victimization and violence directly witnessed within the last year will be employed in the ages 22 -25 assessments as was the case in the grade 6 through ongoing age ~21 assessments. Serving to justify our continued use of the CREV in young adulthood, Campbell et al. (2007) report on the psychometric properties of the CREV among a young adult sample of African American (n = 82) and European American (n = 81) 18-23 year olds. Cronbach's alpha for the total scale was excellent for the total sample and by ethnicity and gender (alphas ranged from .87 to .93), and moderate to excellent for the four theoretical scales (alphas ranged from .63 to .87). Two-week test-retest reliability was excellent for the total scale ($r = .89$), for the four theoretical scales (r s ranged from .57 to .88), and for each ethnicity and gender (r s ranged from .79 to .93). Concurrent validity was established through correlations with measures of community, family, and school violence exposure. As described in Section 2.7, we hypothesize that the higher the levels of exposure to violence, the greater the risk of developing anxiety and depression, and, as a result, poorer developmental and intervention outcomes.

NSDUH Perceived Availability & Harmfulness of Substance Use (Johnston et al., 1995). As in the grade 6 to age ~21 assessments, these NSDUH subscales will be used to assess respondents' perceptions of (1) the availability and (2) harmfulness of substances, given both have been shown to be associated with substance use

The Monitoring the Future National Survey: Friends Drug Use Subscale (Johnston et al., 1995). The Friends Drug Use subscale from the MFTSNS will be used as in grades 6 to age ~ 21 to assess the participant's perception of how many of his/her friends used tobacco, alcohol, and each of the drugs included in the assessment of the participant's drug use.

The Monitoring the Future National Survey--Attitudes & Beliefs & Social Milieu Subscales (Johnston et al., 1995). Subscales from the MFTSNS will be used as in grades 6 to age ~ 21 to assess (1) the participant's attitudes towards drug use, including personal disapproval of drug use, and (2) perceived attitudes of parents, partners, and friends towards the youth's drug use.

Adult ADHD Self-Report Scale-Short Form (ASRS, Kessler et al., 2006). The ASRS includes 18 questions about the frequency of past 6 months DSM-IV Criterion A symptoms of adult ADHD, inattention, impulsivity and hyperactivity. Kessler et al. (2006) reported data on the concordance of the long and short-form of the ASRS with blind clinical diagnoses in a community sample derived from the National Comorbidity Survey Replication (NCS-R). The ASRS screener consists of six out of the 18 questions making up the ASRS that yielded the best concordance with clinical diagnoses. The unweighted six-question ASRS short form performed well in terms of total classification accuracy (97.9%) and kappa (0.76), proving superior on each of these indices to the 18-item form. We used the ASRS in our age ~ 20 and ongoing ~ age 21 assessments and plan to continue using it in the proposed

age 22-25 assessments. We hypothesize (Section 2.5) that problems with attention, impulsivity and hyperactivity may serve to disrupt social problem solving and conflict resolution in the family, romantic relations and work social fields as well impair performance in the school and work social fields. Such disruptions and impairments may then translate into poor intervention response.

Family Psychiatric History Screen for Epidemiologic Studies (FPHSES). The FPHSES was successfully used in NIMH's Methodology for the Epidemiology of Child & Adolescent Disorders (MECA) study, as part of the Service Utilization and Risk Factor Interview (Goodman et al., 1991). It offers a brief screen of family psychiatric history, including substance abuse and dependence. In the proposed age 22-25 assessments, we plan to use the FPHSES to gather the young adult's self report of the psychiatric history of their immediate family members, including members of their family of origin and family of procreation (i.e., romantic partners) if applicable. Data on the family's psychiatric status will allow us to model the impact of family psychopathology and substance abuse/dependence on the young adults' social adaptation, psychological well-being and substance abuse/dependence from age 22-25.

National Health and Nutrition Examination Survey III: Data Collection Forms (The NHNES, 1990). The NHNES interviews were developed for use in the ongoing National Center for Health Statistics studies of adult and youth health status, practices, and service utilization. Screening items from the youth and adult short forms of the interview were used in the grades 6-12 parent interviews. These items included an overall appraisal of current health status and the extent to which any disabling health conditions are present. Since age 19, we have administered these items to the youths themselves. These data allow us to model how young adult physical health impacts their psychological well-being and social adaptation status.

5.2.4.5 VARIATION IN DEVELOPMENTAL & INTERVENTION OUTCOMES: MODERATORS & MEDIATORS OF OUTCOMES--CHARACTERISTICS OF THE NEIGHBORHOOD AND COMMUNITY SOCIAL FIELDS

Census Bureau data and police records will continue to be used to derive salient ecological variables. Census information will be gathered to characterize youth neighborhoods in terms of unemployment, poverty, and education levels, household size and structure, type of housing, population density, and ethnic composition. Police records will be used to characterize neighborhoods in terms of criminal activity, including violent crime.

Table 1. The Existing Data Set: Ages 19-22 Constructs & Measures

| Construct | METH OD¹ | AGE | CITATION |
|---|---|------------|---|
| SOCIAL ADAPTATIONAL STATUS | | | |
| Antisocial Personality Disorder & Behavior | YA | 19-22 | <ul style="list-style-type: none"> • Diagnostic Interview Schedule (DIS, Robbins et al , 2000) |
| Tobacco, Alcohol, Marijuana, Crack, Cocaine, Heroin, Inhalants, Ecstasy, Hallucinogens, Amphetamines, Narcotics, & Tranquilizers: Ever Offered Intent To Use Ever Use Age At First Use Frequency Of Use Last Use Dependence/Impairment | YA | 19-22 | <ul style="list-style-type: none"> • National Survey on Drug Use & Health (NSDUH): SAMHSA (2001) |
| Pathological Gambling | YA | 19-22 | <ul style="list-style-type: none"> • Pathological Gambling Diagnostic Scale (Stinchfield et al., 2001) |
| Post Secondary Years of Education Grades Employment History Income | YA & College/ Vocatio nal School Records YA | 19-22 | |
| History of Sexual Behavior (Lifetime & Last Month History of STDs (Lifetime & Last Year). Pregnancy History. | YA | 19-22 | |
| Criminal Convictions Arrests Police Contact | Police & Court Records | 19-22 | |
| PSYCHOLOGICAL WELL-BEING | | | |
| Major Depression/ Dysthymia | YA | 19-22 | <ul style="list-style-type: none"> • CDISC IV --Y (Shaffer et al. , 2000) |

| | | | |
|--|----|-------|---|
| Generalized Anxiety Disorder Panic Social Phobia | YA | 19-22 | • CDISC IV –Y (Shaffer et al., 2000) |
|--|----|-------|---|

¹YA=Young Adult

| | | | |
|--|----|-------|--|
| <u>Perfectionism</u> | YA | 19-22 | <ul style="list-style-type: none"> • Multidimensional Perfectionism Scale (MPS): Hewitt & Flett (1991) |
| <u>Control and Contingency Related Beliefs:</u> Academic; Social; Behavioral, Romantic Relations, Athletics, Work | YA | 19-22 | <ul style="list-style-type: none"> • Control and Contingency Related Beliefs: Weisz et al (2001) |
| Negative Experience Associated With Race | YA | 19-22 | <ul style="list-style-type: none"> • The Racism and Life Experiences Scales: Harrell (1997) |
| Perceived Relations with Romantic Partners and Parents/Caregivers | YA | 20-22 | <ul style="list-style-type: none"> • The Quality of Relationships Inventory (QRI, Pierce, 1996) |
| Interpersonal Conflict | YA | 20-22 | <ul style="list-style-type: none"> • Revised Conflict Tactics Scales (CTS2) (Straus et al., 1996) |
| <u>Major Stressful Life Events Experienced By:</u> Young Adult Family Members Close Friends | YA | 19-22 | <ul style="list-style-type: none"> • The Life Events Questionnaire: Coddington (1972) • Health and Daily Living Form (HDL) (Moos et al., 1987) |

¹YA= Young Adult

Table 1 continued. The Existing Data Set: Ages 19-22 Constructs & Measures

| CONSTRUCT | METH OD¹ | AGE | CITATION |
|---|--------------------------------|------------|--|
| MEDIATORS & MODERATORS - CONTINUED | | | |
| DNA | Blood or Saliva | 21 | |
| Physical Health | YA | 19-22 | <ul style="list-style-type: none"> • National Health and Nutrition Examination Survey (NHNES): NCHS (1990) |
| <u>Community Profiles and Characteristics:</u> Unemployment Poverty Education Levels Household Size And Structure Type Of Housing Population Density Ethnic Composition Nature And Rates Of Crime | Census, Police & Court Records | 19-22 | |
| Violence Exposure | YA | 19-22 | <ul style="list-style-type: none"> • CREV, Cooley-Quille et al, 1995 |
| SERVICES NEED AND USE | | | |
| Mental Health Service Utilization | YA, State & Local Records | 19-22 | <ul style="list-style-type: none"> • Service Assessment for Children and Adolescents. (Horwitz et al, 2001) |
| Drug Treatment Service Utilization | YA, State & Local Records | 19-22 | <ul style="list-style-type: none"> • National Survey on Drug Use & Health (NSDUH): SAMHSA (2001) |

¹YA = Young Adult

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