References for Supplemental Table S.1

- American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). Diagnostic and statistical manual of mental disorders (3rd ed., rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.
- Belli, R. F., Shay, W. L., & Stafford, F. P. (2001). Event history calendars and question list surveys: A direct comparison of interviewing methods. *Public Opinion Quarterly*, 65, 45–74.
- Caspi, A. (2000). The child is father of the man: Personality continuities from childhood to adulthood. *Journal of Personality and Social Psychology*, 78, 158–172.
- Caspi, A., Moffitt, T. E., Thornton, A., Freedman, D., Amell, J. W., Harrington, H., et al. (1996). The Life History Calendar: A research and clinical assessment method for collecting retrospective event-history data. *International Journal of Methods in Psychiatric Research*, 6, 101–114.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396.
- Costello, A., Edelbrock, C., Kalas, R., Kessler, M., & Klaric, S. A. (1982). *Diagnostic Interview Schedule for Children (DISC)*. Rockville, MD: National Institute of Mental Health.
- Davis, P., Jenkin, G., & Coope, P. (2003). New Zealand Socio-Economic Index 1996: An update and revision of the New Zealand Socio-Economic Index of Occupational Status. Wellington: Statistics New Zealand.
- Elley, W. B., & Irving, J. C. (1976). Revised socio-economic index for New Zealand. *New Zealand Journal of Educational Studies*, 11, 25–36.
- Kennedy, P. J. (1981). New Zealand: A study of the educational system of New Zealand and a guide to the academic placement of students in educational institutions of the United States. Washington, DC: American Association of Collegiate Registrars and Admissions Officers.
- Krueger, R. F., Caspi, A., Moffitt, T. E., Silva, P. A., & McGee, R. (1996). Personality traits are differentially linked to mental disorders: A multitrait–multidiagnosis study of an adolescent birth cohort. *Journal of Abnormal Psychology*, 105, 299–312.
- Melchior, M., Caspi, A., Milne, B. J., Danese, A., Poulton, R., & Moffitt, T. E. (2007). Work stress precipitates depression and anxiety in young, working women and men. *Psychological Medicine*, *37*, 1119–1129.
- Milne, B. J., Caspi, A., Crump, R., Poulton, R., Rutter, M., Sears, M. R., et al. (2009). The validity of the family history screen for assessing family history of mental disorders. *American Journal of Medical Genetics*, 150B, 41–49.
- Milne, B. J., Caspi, A., Harrington, H., Poulton, R., Rutter, M., & Moffitt, T. E. (2009). Predictive value of family history on severity of illness: The case for depression, anxiety, alcohol dependence, and drug dependence. *Archives of General Psychiatry*, 66, 738–747.
- Moffitt, T. E., Caspi, A., Harkness, A. R., & Silva, P. A. (1993). The natural history of change in intellectual performance: Who changes? How much? Is it meaningful? *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 34, 455–506.
- Moffitt, T. E., Caspi, A., Harrington, H., & Milne, B. J. (2002). Males on the life-course-persistent and adolescence-limited antisocial pathways: Follow-up at age 26 years. *Development and Psychopathology*, 14, 179–207.
- Moffitt, T. E., Caspi, A., Harrington, H., Milne, B. J., Melchior, M., Goldberg, D., et al. (2007). Generalized anxiety disorder and depression: Childhood risk factors in a birth cohort followed to age 32. *Psychological Medicine*, 37, 441–452.
- Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P. A. (2001). Sex differences in antisocial behaviour: Conduct disorder, delinquency, and violence in the Dunedin Longitudinal Study. Cambridge: Cambridge University Press.
- Odgers, C. L., Caspi, A., Nagin, D. S., Piquero, A. R., Slutske, W. S., Milne, B. J., et al. (2008). Is it important to prevent early exposure to drugs and alcohol among adolescents? *Psychological Science*, 19, 1037–1044.
- Odgers, C. L., Milne, B. J., Caspi, A., Crump, R., Poulton, R., & Moffitt, T. E. (2007). Predicting prognosis for the conduct-problem boy: Can family history help? *Journal of the American Academy of Child & Adolescent Psychiatry*, 46, 1240–1249.
- Patrick, C. J., Curtin, J. J., & Tellegen, A. (2002). Development and validation of a brief form of the Multidimensional Personality Questionnaire. *Psychological Assessment*, 14, 150-163.
- Robins, R. W., Caspi, A., & Moffitt, T. E. (2000). Two personalities, one relationship: Both partners' personality traits shape the quality of their relationship. *Journal of Personality and Social Psychology*, 79, 251–259.
- Robins, L. N., Cottler, L., Bucholz, K. K., & Compton, W. (1995). *Diagnostic Interview Schedule for DSM-IV*. St Louis, MO: Washington University School of Medicine.
- Robins, L. N., Helzer, J. E., Croughan, J., & Ratcliff, K. S. (1981). National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics, and validity. *Archives of General Psychiatry*, 38, 381–389.
- Rutter, M., Tizard, J., & Whitmore, K. (1970). Education, health, and behaviour. New York: Wiley.
- Wechsler, D. (1974). Manual for the Wechsler Intelligence Scale for Children—Revised. New York: Psychological Corporation.

- Weissman, M. M., Wickramaratne, P., Adams, P., Wolk, S., Verdeli, H., & Olfson, M. (2000). Brief screening for family psychiatric history: The family history screen. *Archives of General Psychiatry*, *57*, 675–682.
- Wright, B. R. E., Caspi, A., Moffitt, T. E., Miech, R. A., & Silva, P. A. (1999). Reconsidering the relationship between SES and delinquency: Causation but not correlation. *Criminology*, *37*, 175–194.

 Table S.1. Description of the prospective predictors and adult correlates of the alcohol dependence subtypes

	Respondent	Description Correlate	Age(s) at Assessment	Raw Mean (SD) or %
		Correlate		
Family psychiatric history Depression Anxiety Antisocial Substance dependence		The Family History Screen (Weissman et al., 2000). Scores on this measure index the proportion of family members across three generations with a diagnosis of depression, any anxiety disorder (generalized anxiety, panic, agoraphobia, phobia, or obsessive compulsive disorder), conduct disorder or antisocial personality disorder, and substance dependence (alcohol or drug dependence; Milne, Caspi, Crump, et al., 2009; Milne, Caspi, Harrington, et al., 2009; Odgers et al., 2007).	32	0.29 (0.22) 0.20 (0.19) 0.17 (0.19) 0.15 (0.17)
		Prospective Predictors		
Family socioeconomic status	Parents	The highest of father's or mother's occupation using a 6-point scale for New Zealand (Elley & Irving, 1976). Repeated measures were averaged (Wright, Caspi, Moffitt, Miech, & Silva, 1999).	Birth–15	3.75 (1.14)
Childhood IQ	Study member	The Wechsler Intelligence Scale for Children—Revised (Wechsler, 1974). Scores were averaged across time (Moffitt, Caspi, Harkness, & Silva, 1993).	7, 9, 11, and 13	106.72 (14.38)
Undercontrolled temperament	Laboratory observation	Staff made ratings on childhood behavioral characteristics after observing each study child in a 90-min testing session with an unfamiliar examiner. Cluster analyses revealed five homogenous temperament types, including the undercontrolled type (Caspi, 2000). Undercontrolled children were impulsive, restless, negativistic, distractible, and labile in their emotional responses.		10%
Childhood behavioral problems Hyperactive Antisocial Internalizing	Parents and teachers	The Rutter Child Scales (Rutter, Tizard, & Whitmore, 1970). Ratings were averaged across informant and time (Moffitt, Caspi, Rutter, & Silva, 2001).	5, 7, 9 and 11	1.24 (1.02) 1.48 (1.25) 1.72 (1.03)

Early exposure to substances	Study member	Use of drugs (e.g., inhalants, cannabis) or use or purchase of alcohol on multiple occasions over the past year at age 13, age 15, or both (Odgers et al., 2008).	13 and 15	12%
Alcohol frequency	Study member	Typical frequency of drinking any kind of alcohol. Response categories ranged from $0 = \frac{never}{don't} \frac{drink}{drink}$ to $11 = once a \frac{day \ or \ more}{day}$, with $6 = once \ every \ 2 \ weeks$.	18	6.81 (2.27)
Daily alcohol use	Study member	Study members who reported that they drank on 5–6 days or more per week were considered daily drinkers during the year prior to their 18th birthday.	18	4%
Adolescent drug use Marijuana use Hard drug use	Study member	Frequency of marijuana use and frequency of "hard drug" (e.g., cocaine, heroin, LSD) use over the past year. Participants reported the total number of days out of the past year that they used marijuana or hard drugs. Responses were collapsed into the following categories: $0 = none$, $1 = 1-2$ days, $2 = 3-5$ days, $3 = 6-11$ days, $4 = 12-24$ days, $5 = 25$ or more days.	18	1.31 (1.80) 0.15 (0.70)
Alcohol- and drug-related interference	Study member	Study members who reported alcohol- or drug-related problems at age 18 or 21 were asked to indicate on a 5-point scale $(1 = low, 5 = high)$ how much these problems interfered with their lives or everyday activities. The maximum score reported at age 18 or 21 was taken.	18 and 21	1.70 (1.00)
Personality traits Positive emotionality Negative emotionality Constraint	Study member	Modified version of the Multidimensional Personality Questionnaire (Patrick, Curtin, & Tellegen, 2002). Details concerning this measure as used in the Dunedin sample can be found in Krueger, Caspit, Moffitt, Silva, and McGee (1996).	18	247.49 (50.04) 97.32 (51.77) 181.69 (44.97)

Adolescent psychiatric diagnoses Conduct disorder Depression Anxiety disorders	Study member	The Diagnostic Interview Schedule for Children (DISC-C; Costello, Edelbrock, Kalas, Kessler, & Klaric, 1982) and the DIS (Robins, Helzer, Croughan, & Ratcliff, 1981). Adolescent conduct disorder, depression, and anxiety disorders were assessed using the DISC-C at ages 11, 13, and 15 and the DIS at age 18. Diagnoses were based on DSM-III (American Psychiatric Association, 1980) criteria at the younger ages and DSM-III-R (American Psychiatric Association, 1987) criteria at age 18. The reporting period was the past 12 months at each age. Conduct disorder criteria at each assessment phase were scored to be consistent with DSM-IV (American Psychiatric Association, 1994) criteria (Moffitt et al., 2001). Anxiety disorders were grouped to include separation anxiety disorder, overanxious disorder, and the phobias at ages 11, 13 and 15 and generalized anxiety disorder, obsessive compulsive disorder, panic disorder, and the phobias at age 18. Cases entered the diagnostic anxiety group if they had been given any anxiety diagnosis at any assessment phase.	11, 13, 15, and 18	22% 20% 36%
		Adult Correlates		
Adult socioeconomic status	Study member	Study members' current or most recent occupation was assigned to one of six categories based on the educational levels and income associated with that occupation in data from the New Zealand census. The scale ranges from 1 = unskilled laborer to 6 = professional. Homemakers and those who were not working (e.g., students) were prorated based on their educational status according to the criteria included in the current New Zealand Socioeconomic Index (Davis, Jenkin, & Coope, 2003).	32	3.29 (1.45)
Education	Study member	Highest education level completed. Study members were considered to have no school qualifications (0), school qualifications (1), high school diploma (2), or a bachelor's degree or higher (3). School qualifications are based on national exams that almost all students take by age 16, which determine promotion in secondary school and technical schools; passing this exam also helps secure better employment in the labor market (Kennedy, 1981).	32	1.75 (1.03)

Long-term unemployment	Study member	Months of unemployment between ages 26 and 32 (defined as not working, not a student or homemaker, and looking for work) was recorded using a Life History Calendar (LHC) administered at age 32 (Belli, Shay, & Stafford, 2001; Caspi et al., 1996). Study members who spent 6 or more months unemployed between ages 26 and 32 were considered to be long-term unemployed.	32	5%
Cohabitation status	Study member	Currently cohabiting (married or unmarried = 1) or neither married or cohabiting (0) .	32	73%
Adult mental health Depression Anxiety disorders	Study member	The DIS (Robins, Cottler, Bucholz, & Compton, 1995) past- year diagnoses of DSM-IV (American Psychiatric Association, 1994) major depressive disorder and grouped anxiety disorders (generalized anxiety disorder, obsessive compulsive disorder, panic disorder, posttraumatic stress disorder, and the phobias; Moffitt et al., 2007).	32	16% 22%
Suicide attempts	Study member	Study members reported about suicide attempts between ages 20 and 32 on the LHC and about past-year suicide attempts during the DIS at ages 21, 26, and 32.	21, 26, and 32	5%
Court convictions	Court records	Records of convictions at all courts in New Zealand and Australia were searched, with the informed consent of study members, using the New Zealand Police computer system. Records included convictions (excluding driving while intoxicated) in adult criminal courts from age 17 to age 32 (Moffitt et al., 2001).	17–32	1.86 (7.52)
Alcohol problems	Informants	Study members nominated three people "who knew them well." These informants were mailed questionnaires and asked to report on whether the participant had problems with alcohol over the past year. Response options were $0 = not a$ problem, $1 = a bit of a problem$, and $2 = yes$, a problem. Responses were averaged across informants. Study members rated as 1 or 2 were considered to have been experiencing informant-rated alcohol problems (Moffitt, Caspi, Harrington, & Milner, 2002).	32	5%

Marijuana	a dependence	Study member	The DIS (Robins et al., 1995) past-year diagnosis according to DSM-IV (American Psychiatric Association, 1994).	32	5%
Other drug	ng dependence	Study member	The DIS (Robins et al., 1995) past-year diagnosis of dependence on any drug, other than marijuana, according to DSM-IV (American Psychiatric Association, 1994).	32	4%
A	e use treatment Alcohol treatment Drug treatment	Study member	Study members reported receiving mental-health services (e.g., from a general practitioner, psychiatrist, psychologist, rehabilitation or detoxification center, or emergency room) or psychiatric medications for alcohol or drug problems between ages 20 and 32 on the LHC (Moffitt Caspi et al., 2007).	32	0.06 (0.49) 0.13 (0.84)
Relationsl	ship quality	Study member	Relationship quality was assessed with a 28-item interview (Robins, Caspi, & Moffitt, 2000) concerning shared activities and interests, the balance of power, respect and fairness, emotional intimacy and trust, and open communication in the relationship. Response options were 0 = almost never, 1 = sometimes, or 2 = almost always. Responses were averaged.	32	1.63 (0.28)
Job dema	ands	Study member	A 6-item measure of psychological job demands, assessing workload and time pressure (Melchior et al., 2007). Response options were $0 = no$, $1 = sometimes$, and $2 = yes$. Responses were summed.	32	5.11 (2.75)
Perceived	d stress	Study member	A shortened, 10-item version of the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). This measure briefly assesses study members' perception of stress and the extent to which respondents find their lives to be unpredictable and uncontrollable. Response options were $0 = almost\ never$, $1 = sometimes$, $2 = a\ lot$. Responses were summed.	32	5.73 (3.75)
S	Drink alcohol Smoke Obsess about problem	Study member	An interview measure assessing how study members cope with stress associated with their relationships, work, and finances. For each of three domains (relationships, work, and finances), study members were asked, "When you feel	32	0.36 (0.53) 0.41 (0.68) 0.40 (0.47)

Attempt to solve problem	Attempt	t to	solve	prob	lem
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1.30 (0.48)

stressed about your relationship (your job/ your finances), which of the following things do you do to cope? We report on coping by (a) drinking alcohol, (b) smoking, (c) obsessing about the problem, and (d) taking steps right away to solve the problem. Response options were 0 = not true, 1 = somewhat true, and 2 = very true. Responses for relationships, work, and finances were averaged.