

Paul Rohde, John Noell and Linda Ochs, IQ scores among homeless older adolescents: characteristics of intellectual performance and associations with psychosocial functioning, *Journal of Adolescence*, Volume 22, Issue 3, June 1999, Pages 319-328.

<http://dx.doi.org/10.1006/jado.1999.0224>

IQ Scores among Homeless Older Adolescents: Characteristics of Intellectual
Performance and Associations with Psychosocial Functioning

Paul Rohde

John Noell

Linda Ochs

Word count: 4753

Paul Rohde, Ph.D., John Noell, Ph.D., and Linda Ochs, M.S. are at the Oregon Research Institute. This research was partially supported by National Institute of Allergy and Infectious Diseases grant AI34497 (John Noell, P.I.). The authors wish to thank Paul Yovanoff and Keith Smolkowski for their statistical assistance. Correspondence concerning this article should be addressed to Paul Rohde, Oregon Research Institute, 1715 Franklin Blvd., Eugene, OR, 97403-1983.

Abstract

Intellectual performance and the associations of IQ with the quality of psychosocial functioning were studied in a sample of homeless older adolescents. Fifty homeless older adolescents (ages 16-21) completed the Wechsler Adult Intelligence Scale-Revised (WAIS-R) and a questionnaire assessing psychosocial functioning and sexual risk factors. WAIS-R scores were comparable to population means, with Performance IQ scores tending to be higher than Verbal IQ scores. IQ was unrelated to the duration of homelessness. Higher IQ scores were significantly correlated with only a minority of the measures of psychosocial functioning, including less self-reported depression and lower reported delinquency but also less self-control in high-risk sexual situations, less perceived peer support for safer sex, and a higher perceived likelihood of acquiring HIV.

IQ Scores among Homeless Older Adolescents: Characteristics of Intellectual Performance and Associations with Psychosocial Functioning

Intelligence tests are designed to measure major mental abilities and, more broadly, aim to assess an individual's potential for purposeful and useful behavior by comparing the performance of a person to scores attained by representative members of his or her age group (Wechsler, 1981). In the present study, we examine the characteristics of intelligence test scores and their correlates in a high risk, but understudied, population: homeless older adolescents.

Over one million children and adolescents in the U.S. are thought to be homeless (Robertson, 1992). Homeless adolescents often come from backgrounds of severe emotional deprivation and abuse (Powers et al, 1990) and experience high rates of mental health problems and drug abuse (Shaffer and Caton, 1984), criminal activity (McCarthy & Hagan, 1992), early pregnancy and sexually transmitted diseases (STDS) (Rotheram-Borus et al, 1991), learning difficulties and impaired academic performance (Arnold & Braband, 1977; Barwick & Siegel, 1996; Shaffer & Caton, 1984). The future work performance of homeless young people is often poor (Warheit & Biafoa, 1991). Clearly, this population warrants increased study and service provision.

The first goal of the present study was to provide preliminary descriptive information about the characteristics of intellectual performance in a sample of homeless older adolescents, as evaluated by the standard measure of adult intelligence, the Wechsler Adult Intelligence Scale - Revised (WAIS-R; Wechsler, 1981). Previous research on the intellectual performance of homeless adolescents is limited, although homeless children, especially younger children, have been shown to exhibit intellectual delays (e.g., Rescorla et al, 1991; Whitman et al, 1990). Contrary to research conducted in the U.S., homeless children in Colombia were found to score in the normal intelligence range (Aptekar, 1989), as have homeless adolescents in Germany (Arnold & Braband, 1977). Given the mixed previous findings, we expected homeless older adolescents to score slightly below standardized IQ norms. In addition to the measurement of overall intellectual functioning, Performance IQ subtests, which are less influenced by formal schooling and socioeconomic status and therefore more culturally fair (e.g., Groth-Marnat, 1984), were hypothesized to be higher than Verbal IQ scores. Lastly, we examined whether IQ scores among homeless older adolescents varied as a function of length of time on the street. We had no clear directional hypothesis. It was possible that homeless older adolescents with higher intellectual functioning might be more successful at fulfilling their basic survival needs (i.e., IQ is related to "street smarts"). Conversely, homeless older adolescents with lower intellectual functioning may have become homeless at an earlier age (perhaps due to academic difficulties) and, once homeless, may be less likely to be able to leave the streets.

The second goal of the present study was to examine whether IQ summary scores were associated with indices of psychosocial functioning. Among adolescents who are not homeless, poor intellectual functioning has been found to be associated with lower scholastic and job performance (Clarizio, 1979); conduct disorders and delinquency (Lynam et al, 1993); hostility

(Egan, 1989); depression and other psychopathology (Manikam, 1995); nonconformity (Egan, 1989); and early childhood victimization (Perez and Widom, 1994). A number of the measures employed in the present study focused on sexual risk factors, as that was one of the primary targets of the larger study from which the present study emerged. Homeless older adolescents are an especially relevant group for examining the issue of adolescent sexual behavior, as they engage in high rates of behaviors associated with sexually transmitted disease (STD) acquisition and pregnancy. In the present study, higher IQ scores were predicted to be correlated with measures of more effective psychosocial functioning, including higher academic achievement, better mental health functioning, lower rates of STDs and pregnancy, more consistent use of contraceptives, and lower rates of incarceration or institutionalization.

Method

Participants and Procedures

Fifty participants were selected for the present study from a larger sample of 600 homeless older adolescents participating in a non-intervention study examining the factors associated with STD transmission in a high-risk population. Adolescents had been recruited to participate in the original study from the streets of a northwestern U.S. city by a street outreach program for homeless youths. Individuals were self-selected for involvement in the main study, with initial eligibility screening done by the street outreach organization (i.e., determining that the individual reported being under 21 and was homeless). Homelessness was defined as (a) not spending more than a total of one month with parents or guardians in the previous six months, (b) not living with parents or guardians, even temporarily, in the last 30 days, and (c) not having a stable domicile (defined as living in a single code-approved building for the last 30 or more days). Participants received \$20 for completing the baseline assessment.

Twenty-five female older adolescents and 25 male older adolescents from the original study were selected to complete the WAIS-R assessment, for which they received an additional \$10 payment. Participants were selected on the basis of gender and age to achieve an equal number of males and females and a good distribution of ages (all participants in the present study were 16 years of age or older; mean age = 18.3 years, SD = 1.3, range = 16-21). Of the individuals selected from the larger study to participate in the WAIS-R assessments, participation was greater than 90%. No differences were present between participants in the present study and the remainder of the sample on gender (50.0% vs. 40.2% female), $\chi^2(1, n = 391) = 1.73$, ns; age (18.3 years vs. 18.3 years), $t(388) = 0.10$, ns; or race (82.0% vs. 77.4% white), $\chi^2(7, n = 386) = 7.03$, ns. Differences in academic indicators also were nonsignificant: percent in school currently (16.7% vs. 11.9%), $\chi^2(1, n = 385) = 0.89$, ns; highest grade level completed (38.0% vs. 33.7% completed 12th grade), $\chi^2(13, n = 389) = 19.12$, ns; grade point average (GPA) of last term (53.1% vs. 61.4% had C grade average or less), $\chi^2(4, n = 368) = 6.31$, ns; and future education goals, $\chi^2(9, n = 375) = 4.40$, ns. Although IQ study participants did not differ from the rest of the sample on average length of time on the street (496.7 vs. 649.8 days), $t(389) = 1.12$, ns, they were significantly older when they had first left home (mean age 15.10 vs. 14.29 years), unequal variance $t(80.96) = 2.60$, $p < .05$.

Assessment of Intellectual Functioning

Participants were administered the complete Wechsler Adult Intelligence Scale - Revised (WAIS-R; Wechsler, 1981) using standard procedures. The WAIS-R contains six verbal and five performance (nonverbal) subtests. The Verbal IQ subtests consist of Information (general information), Digit Span (short-term memory, concentration, anxiety), Vocabulary (verbal ability), Arithmetic (basic math skills, concentration, mental alertness), Comprehension (social judgement and insight, practical reasoning), and Similarities (verbal concept formation relatively unaffected by socioeconomic status or impulsivity). The Performance IQ subtests consist of Picture Completion (visual discrimination, attention to details), Picture Arrangement (social intelligence and understanding of interpersonal situations), Block Design (visual-motor coordination, nonverbal reasoning, performance speed), Object Assembly (visual analysis, assembly skills), and Digit Symbol (persistence and sustained attention). Raw scores were converted to normed scaled scores (standardized to have a mean of 10 and SD of 3) which were used to derive three IQ summary scores (Verbal IQ, Performance IQ, Full Scale IQ; standardized to have a mean of 100 and SD of 15). Testing, which was administered by a licensed clinical psychologist (P.R.), generally took 1.5 hours and was completed after the adolescent had finished participation in the original study.

Assessment of Psychosocial Functioning

Participants were assessed on an interviewer-administered battery covering numerous measures of psychosocial functioning. Variables examined as potential correlates of intelligence were categorized as follows (unless noted the variable was a single-item measure).

Homelessness was assessed by (a) age when first left home, and (b) number of days living on the street.

Education was assessed by (a) highest grade completed in school, (b) grade point average during last school term, and (c) future education plans, a measure of future academic aspirations.

Attitudes and intentions regarding contraception and sexual behavior were assessed by items originally developed and evaluated on samples of runaway and gay male youths (Koopman et al, 1990): (a) condom self-efficacy (20 items), (b) perceived chances of acquiring HIV (3 items), (c) self-control in high-risk sexual situations (5 items), (d) expectations to act to prevent pregnancy (5 items), and (e) peer support for safer sex (6 items). Four additional items assessed (f) likelihood of using a condom when one's partner was opposed to it, (g) likelihood of having sex if pressured by one's partner, (h) perceived condom use among all adolescents (percent of adolescents who have sex without condoms), and (i) perceived condom use among homeless adolescents.

Sexual behavior was assessed by (a) frequency of vaginal intercourse in last 3 months, (b) number of sexual partners (resulting in intercourse) in last 3 months, (c) frequency of condom use in last 3 months, (d) lifetime number of pregnancies (females only), (e) self-reported history of STDs, (f) self-labeled sexual orientation, (g) reported feelings of sexual attraction towards member of the same and opposite sex, and (h) lifetime homosexual experience.

General health was assessed by (a) self-rated physical health, and (b) major physical problems.

Abuse and sexual coercion was assessed by (a) frequency of child abuse, (b) history of

sexual abuse, (c) frequency of sexually coercion (females only; 14 items; Koss, 1990), and (d) frequency of being sexually coercive (males only; 14 items; Koss, 1990).

Mental health was assessed by (a) state anxiety (10 items from the State Anxiety Subscale of the State-Trait anxiety Inventory; Spielberger et al, 1970); (b) coping skills (14 items divided into behavioral and ineffective coping; Rohde et al, 1990); (c) self-esteem (3 items from the Rosenberg Self-Esteem Scale; Rosenberg, 1965); (d) perceived loss of control (3 items; Newcomb & Harlow, 1986); (e) loneliness (8 items from the UCLA Loneliness Scale; Russell et al, 1980); (f) meaninglessness (3 items; Newcomb & Harlow, 1986); (g) hopelessness (10 items from the Beck Hopelessness Inventory; Beck et al, 1984); (h) current self-reported depression (20 items from the Center for Epidemiologic Depression Scale; Radloff, 1977); (i) suicidal behavior (5 items assessing current suicidal ideation, 1 item assessing lifetime ideation, 1 item assessing history of suicide attempt); and (j) major life events (22 items modified from the Social Readjustment Rating Scale; Holmes & Rahe, 1967, and the Life Events Schedule; Sandler & Block, 1979).

Delinquency and rehabilitation was assessed by (a) history of arrest, (b) number of times in youth detention facility, (c) number of times in jail, (d) number of times in drug rehabilitation program, (e) number of times in mental institution, and (f) self-reported delinquent behavior (4 items).

Substance use was assessed by (a) lifetime IV drug use, (b) cigarette use in last 7 days, (c) alcohol use in last 7 days, (d) nine categories of drug use in past 30 days (marijuana, LSD, other hallucinogens, sedatives, stimulants, pcp, cocaine, inhalants, opiates), (e) perceived IV drug use among adolescents, and (f) perceived IV drug use among homeless youths.

Results

Descriptive Information

Descriptive data regarding IQ summary scores for the homeless older adolescents are shown in Table 1. None of the IQ summary scores were significantly below the standardized value of 100. In the lower portion of the Table, descriptive information regarding individual subtest scores is provided.

 Insert Table 1 about here

Using guidelines provided in the WAIS-R manual, 12% of participants scored in the superior or very superior range (8% of females; 16% of males), 82% scored in the high to low average range (92% of females; 72% of males), and 6% scored in the borderline or mentally retarded range (0% of females; 6% of males). These distributions are comparable to Wechsler's (1981) findings from a large standardization sample, in which 9.5% of adults scored in the superior or very superior range, 81.8% scored in the average range, and 8.7% scored in the borderline or mentally retarded range.

Gender differences in IQ summary scores were nonsignificant: Verbal IQ, Performance IQ, and Full Scale IQ $t(48) = 0.83, 0.66, \text{ and } 0.06$, respectively. One of the 11 IQ subtests had a

significant gender difference: young women scored higher than young men on Digit Symbol; $t(48) = 2.35, p < .05$.

Intra-subject variability across the subtests was no greater than expected. Matarazzo et al (1988) report that abnormal subtest scatter (defined as occurring in 5% or less of a healthy sample) is represented by a difference of 9 points across either Verbal IQ subtests or Performance IQ subtest or an 11 point difference across all subtests. Using these guidelines, abnormal scatter was present on 0% of Verbal IQ subtests, 2% of Performance IQ, and 2% of all subtests. Gender differences in average scatter for both Verbal and Performance subtests were nonsignificant. Mean Verbal IQ subtest scatter was 4.76 for males and 5.00 for females; $t(48) = 0.54, ns$. Mean Performance IQ subtest scatter was 5.32 for males and 5.00 for females; $t(48) = 0.60, ns$.

The mean difference between Verbal and Performance IQ scores was 8.72 points ($SD = 6.24$). The hypothesis that Performance IQ would be higher than Verbal IQ approached statistical significance; paired $t(49) = 1.62, p = .06$ (one-tailed).

IQ summary scores were unrelated to either adolescent's age when leaving home r with Verbal IQ and Performance IQ = 0.04 and 0.06, respectively, ns) or number of days living on the street r with Verbal IQ and Performance IQ = -0.06 and -0.18, respectively, ns).

Association of IQ with Psychosocial Functioning

The association of IQ scores with various measures of psychosocial functioning was examined using correlations with Verbal and Performance IQ. Correlations were computed for the entire sample, controlling for the effects of gender. Given the lack of previous research with this population and the relatively small sample size in the present study, all tests were conducted as two-tailed with $p < .05$ (i.e., no correction for potential experiment-wide error was applied). Variables correlated with either Verbal or Performance IQ are shown in Table 2.

 Insert Table 2 about here

Contrary to expectation, the majority of examined variables (48/58; 83%) were not statistically associated with either WAIS-R summary score; six variables (10%) were associated with Verbal IQ only, 1 variable (2%) was associated with Performance IQ only, and 3 (5%) were correlated with both Verbal and Performance IQ. Measures associated with higher Verbal IQ scores included lower perceived self-control in high-risk sexual situations, higher perceived likelihood of being exposed to HIV, having sexual feelings mostly towards members of the same sex, less history of sexual abuse, lower frequency of being sexually coercive (males), greater sense of meaningfulness in life, fewer self-reported depressive symptoms in the last week, lower self-report deviant behavior, and lower perceived IV drug use among adolescents. Measures significantly associated with Performance IQ included lower perceived peer support for safer sex acts, having sexual feelings mostly towards members of the same sex, lower self-reported delinquent behavior, and lower perceived IV drug use among adolescents.

Discussion

The first conclusion of the present study is that intellectual functioning in this sample of

homeless older adolescents corresponds closely to properties of the WAIS-R normative sample. Average intellectual performance and the distributions of IQ scores in this sample were surprisingly comparable to the general population and gender differences were minimal. In addition, IQ scores were unrelated to duration of homelessness or the age at which the participant had left home. Therefore, the present study provides no indication that the intellectual functioning of homeless older adolescents is markedly below average or that intellectual functioning is related to duration of time on the street. Contrary to the present study, previous research with homeless male adults in Britain has suggested that reductions in IQ increase as a function of a greater duration of homelessness (Bremner et al, 1996). If this pattern is replicated, a few explanations may be suggested. It may be that intellectual impairments become evident only after an extended period of homelessness. Another possibility is that less intelligent homeless individuals are more likely to remain homeless into adulthood.

The prediction that Performance IQ, which is less affected by prior education and socioeconomic status, would be significantly higher than Verbal IQ in the sample approached statistical significance. On average, homeless older adolescents had their highest scores on the Performance IQ subtests of Object Assembly, Block Design, and Picture Arrangement. Object Assembly is not one of the strongest WAIS-R subtests, but Block Design is generally considered the most culture-fair test in the WAIS-R and represents an excellent test of general intelligence, and Picture Arrangement is probably the strongest measure of social intelligence in the WAIS-R. On average, scores were lowest on the Information and Arithmetic subtests, both of which are influenced by an individual's prior education.

The second goal of the present study was to examine the degree to which a formal assessment of intelligence is related to everyday functioning in this sample. Before interpreting the statistically significant associations that were found, it should be noted that the percentage of significant effects obtained here (13%) was only slightly higher than the percentage that may be expected on the basis of chance (5%). Therefore, future research needs to replicate these associations before too much confidence is placed on these conclusions.

As expected, high IQ scores were associated with less depression and more perceived meaningfulness in life, lower self-reported rates of delinquent behavior, less history of sexual abuse, and lower rates of sexual coercion by males. Conversely, the direction of some significant associations with IQ was counter-intuitive. Specifically, higher IQ scores were associated with three measures of sexual risk: lower perceived self-control in high-risk sexual situations, higher perceived likelihood of acquiring HIV, and less perceived peer support for practicing safer sex. Perhaps, more intelligent homeless older adolescents are more pessimistic but also more realistic about their perceived ability to practice safer sex.

No specific prediction had been made regarding the association of IQ with sexual orientation and the positive association between a measure of homosexual orientation with higher IQ scores clearly needs to be cross-validated. However, if replicated, two preliminary explanations can be offered. First, sexual minority youths may have functioned more effectively and for a longer period in school, subsequently learning more prior to entering the streets (which is often precipitated by difficulties associated with their emerging sexuality in adolescence). Second, perhaps more so than their heterosexual peers, only the more intelligent gay, lesbian, or

bisexual older adolescents can survive on the streets.

The most striking finding in this second issue was the relative absence of statistically significant associations between measures of psychosocial functioning and intellectual performance. Over 80% of the examined variables were unrelated to intelligence. IQ scores were uncorrelated with measures of previous academic performance or future aspirations, the number of sexual partners, frequency of contraceptive use, pregnancy and STD acquisition, likelihood of sexual coercion in females, poor health including most measures of mental health, a history of incarceration or institutionalization, or frequency or type of substance abuse.

The generally weak findings between psychosocial functioning and IQ may be attributed to at least three possibilities. The most mundane explanation is that we had a poor sample of measures of actual functioning. While we do not believe this to be the case, other variables more directly related to the survival of homeless older adolescents (e.g., ability to access food and shelter, maintain personal safety) could have been included. The second explanation is that intelligence is not strongly associated with psychosocial functioning. In a classic study, Terman and Oden (1959) followed a sample of gifted children (i.e., those scoring in the top 1%) into their mid-60s and found that IQ scores were a good but far from perfect predictor of later achievement. These children grew up to be a generally very gifted group; however, 15% achieved much below capability (e.g., failed to complete high school). A third explanation is that we do not have a good sense of what constitutes adaptive behavior on the street. That is to say, behaviors generally considered to be inappropriate actually may be very adaptive for homeless youths.

The study is limited by its small sample size and the fact that participants were not a truly random sample of the homeless older adolescent population. These limitations were imposed by practical constraints of the project and by the realities of the population with which we were working. Even the definition of homelessness is somewhat arbitrary, and random samples of transient populations are nearly impossible to obtain. Therefore, the present findings need to be considered exploratory, pending cross-validation. A broader limitation is the acknowledgment that IQ is not a complete measure of intelligence. Intelligence tests provide a sampling of intelligent behaviors. While IQ scores indicate an individual's intellectual functioning at a point in time relative to others of the same age, performance on the WAIS-R is also affected by factors other than intelligence, including motivation, persistence, learning disabilities, and previous resources that were made available to the person.

Strengths of the study included access to an understudied but high-risk population and the assessment of participants on a relatively broad array of psychosocial factors. The study suggests that maladaptive functioning in this population is not strongly linked to lowered intellectual performance. In addition, our findings clearly indicate that many homeless older adolescents have a number of strong intellectual capabilities. It is unfortunate that society probably will not fully benefit from their talents.

References

- Aptekar, L. (1989). Colombian street children: Gamines and chaupagruesos. *Adolescence*, 24, 783-794.
- Arnold, M. A., & Braband, H. (1977). Social background, attitudes, and aspects of personality in homeless juveniles. *Zeitschrift fur Klinische Psychologie und Psychotherapie*, 25, 246-255.
- Barwick, M. A., & Siegel, L. S. (1996). Learning difficulties in adolescent clients of a shelter for runaway and homeless street youths. *Journal of Research on Adolescence*, 6, 649-670.
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The Hopelessness Scale. *Journal of Consulting and Clinical Psychology*, 42, 861-865.
- Bremner, A. J., Duke, P. J., Nelson, H. E., & Pantelis, C. (1996). Cognitive function and duration of rooflessness in entrants to a hostel for homeless men. *British Journal of Psychiatry*, 169, 434-439.
- Clarizio, H. F. (1979). In defense of the IQ test. *School Psychology Review*, 8, 79-88.
- Egan, V. (1989). Links between personality, ability and attitudes in low-IQ sample. *Personality and Individual Differences*, 10, 997-1001.
- Groth-Marnat, G. (1984). *Handbook of psychological assessment*. NY: Van Nostrand Reinhold.
- Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Psychosomatic Medicine*, 11, 213-218.
- Koopman, D., Rotheram-Borus, M. J., Henderson, R., Bradley, J. S., & Hunter, J. (1990). Assessment of knowledge of AIDS and beliefs about AIDS prevention among adolescents. *AIDS Education and Prevention*, 2, 58-70.
- Koss, M. P. (1990). Violence against women. *American Psychologist*, 45, 374-380.
- Lynam, D., Moffitt, T., & Stouthamer-Loeber, M. (1993). Explaining the relation between IQ and delinquency: Class, race, test motivation, school failure, or self-control? *Journal of Abnormal Psychology*, 102, 187-196.
- Manikam, R., Matson, J. L., Coe, D. A., & Hillman, N. (1995). Adolescent depression: Relationships of self-report to intellectual and adaptive functioning. *Research in Developmental Disabilities*, 15, 349-364.
- Matarazzo, J. D., Daniel, M. H., Prifitera, A., & Herman, D. O. (1988). Inter-subtest scatter in the WAIS-R standardization sample. *Journal of Clinical Psychology*, 44, 940-950.
- McCarthy, B., & Hagan, J. (1992). Surviving on the street: The experiences of homeless youth. *Journal of Adolescent Research*, 7, 412-430.
- Newcomb, M. D., & Harlow, L. L. (1986). Life events and substance use among adolescents: Mediating effects of perceived loss of control and meaninglessness in life. *Journal*

of Personality and Social Psychology, 51, 564-577.

Perez, C. M., & Widom, C. S. (1994). Childhood victimization and long-term intellectual and academic outcomes. *Child Abuse and Neglect*, 18, 617-633.

Powers, J. L., Eckenrode, J., & Jaklitsch, B. (1990). Maltreatment among runaway and homeless youth. *Child Abuse and Neglect*, 14, 87-98.

Radloff, L. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.

Rescorla, L., Parker, R., & Stolley, P. (1991). Ability, achievement, and adjustment in homeless children. *American Journal of Orthopsychiatry*, 61, 210-220.

Robertson, J. M. (1992). Homeless and runaway youths: A review of the literature. In M. J. Robertson & M. Greenblatt (Eds.), *Homelessness: A national perspective* (pp. 287-297). New York: Plenum.

Rohde, P., Lewinsohn, P. M., Tilson, M., & Seeley, J. R. (1990). Dimensionality of coping and its relation to depression. *Journal of Personality and Social Psychology*, 58, 499-511.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NY: Princeton University Press.

Rotheram-Borus, M. J., Koopman, C., & Ehrhardt, A. A. (1991). Homeless youths and HIV infection. *American Psychologist*, 46, 1188-1197.

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personality and Social Psychology*, 39, 472-480.

Sandler, I., & Block, M. (1979). Life stress and maladaptation of children. *American Journal of Community Psychology*, 7, 425-439.

Shaffer, D., & Caton, C. L. M. (1984). *Runway and homeless youth in New York City*. New York: Ittleson Foundation.

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Terman, L. M., & Oden, M. H. (1959). *The gifted group at mid-life. Vol V, Genetic studies of genius*. Stanford, CD: Stanford University Press.

Warheit, G. J., & Biafoa, F. (1991). Mental health and substance abuse patterns among a sample of homeless post-adolescents. *International Journal of Adolescence and Youth*, 3, 9-27.

Wechsler, D. (1981). *Manual for the Wechsler Adult Intelligence Scale - Revised*. New Youth: Psychological Corporation.

Whitman, B. Y., Accardo, P., Boyert, M., & Kendagor, R. (1990). Homelessness and cognitive performance in children: A possible link. *Social Work*, 35, 516-519.

Table 1.
Descriptive Information Regarding IQ Summary Scores in a Homeless Adolescent Sample.

Summary Score	Total Sample (n = 50)			Males (n = 25)			Females (n = 25)		
	M	(SD)	Range	M	(SD)	Range	M	(SD)	Range
Verbal IQ	101.30	(15.08)	71-133	102.72	(16.46)	71-133	99.88	(13.76)	79-127
Performance IQ	104.22	(12.31)	70-124	104.12	(14.57)	70-123	104.32	(9.87)	87-124
Full Scale IQ	102.84	(13.84)	69-133	103.88	(15.90)	69-133	101.80	(11.67)	81-127
Verbal IQ subtests									
Information	8.04	(2.74)	2-14	8.64	(2.88)	2-14	7.44	(2.50)	3-12
Digit Span	9.78	(2.72)	5-16	9.52	(2.97)	5-16	10.04	(2.48)	5-13
Vocabulary	9.06	(2.61)	3-15	9.40	(2.75)	3-15	8.72	(2.46)	4-14
Arithmetic	8.58	(2.76)	4-15	8.88	(3.26)	4-15	8.28	(2.19)	5-11
Comprehension	9.28	(2.43)	3-14	9.44	(2.99)	3-14	9.12	(1.76)	6-13
Similarities	10.12	(2.78)	5-16	10.60	(2.86)	5-16	9.64	(2.66)	5-15
(table continues)									
Performance IQ subtests									
Picture Completion	9.56	(1.86)	5-14	9.72	(2.19)	5-14	9.40	(1.50)	6-12
Picture Arrangement	10.62	(2.46)	4-15	11.12	(2.82)	4-15	10.12	(1.99)	8-15
Block Design	11.06	(2.63)	6-15	11.36	(2.80)	6-15	10.76	(2.47)	6-15
Object Assembly	11.08	(2.48)	5-16	10.76	(2.88)	5-16	11.40	(2.02)	7-16
Digit Symbol	9.06	(2.45)	5-15	8.28	(2.07)	5-13	9.84	(2.59)	6-15

Note. M = mean, SD = standard deviation.

Table 2.
Variables Significantly Associated with Verbal or Performance IQ Scores.

Variable	Correlation with	
	VIQ	PIQ
self-control in high-risk sexual situations	-.31*	-.28*
perceived chances of acquiring HIV	.37**	.25
peer support for safer sex acts	-.12	-.38**
sexual orientation - feelings to members of same sex	.29*	.28
history of sexual abuse	-.41**	-.19
frequency of being sexually coercive (males)	-.41*	-.12
meaninglessness	-.30*	.04
current depressive symptoms	-.30*	-.07
deviant behavior	-.30*	-.38**
perceived IV drug use among adolescents	-.48**	-.45**

Note. VIQ = Verbal IQ; PIQ = Performance IQ. * $p < .05$ ** $p < .01$. Correlations were computed controlling for gender.