NLSY97 CODEBOOK SUPPLEMENT
MAIN FILE ROUND 1

APPENDIX 9: FAMILY PROCESS AND ADOLESCENT OUTCOME MEASURES

Prepared for the
U.S. Department of Labor by

Child Trends, Inc.

and

Center for Human Resource Research
The Ohio State University
1999

NLSY97 CODEBOOK SUPPLEMENT

MAIN FILE ROUND 1

APPENDIX 9: FAMILY PROCESS AND ADOLESCENT OUTCOME MEASURES

Prepared for the
U.S. Department of Labor by

Child Trends, Inc. *Kristin A. Moore* *with* *Kerry Richter*
Sharon McGroder *Carrie Mariner*
Elizabeth C. Hair *Anne Driscoll*
Marjorie Gunnoe *Jennifer Sargent*

and

Center for Human Resource Research
The Ohio State University

1999

This publication is prepared in conjunction with contract #J-9-J-5-0030 with the Bureau of Labor Statistics, U.S. Department of Labor. None of its contents is to be construed as necessarily representing the official position or policy of the Department of Labor.

Table of Contents

Introduction iii
Variable Index iii
Parents' Marital Relationship–Youth Report 1
Parents' Marital Relationship–Parent Report 9
Estranged Parents' Relationship–Youth Report 15
Estranged Parents' Relationship–Parent Report 19
Parent-Youth Relationship–Youth Report 23
Sources of Social Support–Youth Report 39
Index of Family Routines–Youth Report 41
Parental Monitoring–Youth Report 47
Control/Autonomy Limit-Setting–Youth Report 59
Control/Autonomy Limit-Breaking–Youth Report 65
Control/Autonomy–Who Handles When Limit Is Broken–Youth Report 69
Control/Autonomy–Consequences of Limit-Breaking–Youth Report 71
Control/Autonomy Limit-Setting–Parent Report 73
Control/Autonomy Limit-Breaking–Parent Report 79
Control/Autonomy–Who Handles When Limit Is Broken–Parent Report 83
Parenting Styles–Youth Report 85
Parent's Religiosity–Parent Report 99
Family/Home Risk Index 107
Physical Environment Risk Index 115
Enriching Environment Index 121
Behavioral and Emotional Problems Scale for Girls–Youth Report 125
Behavioral and Emotional Problems Scale for Boys–Youth Report 131
Behavioral and Emotional Problems Scale for Girls–Parent Report 137
Behavioral and Emotional Problems Scale for Boys–Parent Report 143
Delinquency Index–Youth Report 149
Substance Use Index–Youth Report 155

Introduction

Child Trends, Inc., an organization involved in the NLSY97 questionnaire design process, created a number of indexes and scales from variables used in the round 1 NLSY97 survey. This appendix includes detailed descriptions of the creation procedures. In addition, Child Trends researchers performed statistical analyses of the scales, indexes, and related data items; summaries of the results are provided.

Please note that although this appendix is a separate paper document, it is considered part of the *NLSY97 Round 1 Codebook Supplement*. This, along with any other NLSY97 documentation, is available from NLS User Services.

For more information about any aspect of the NLS program, contact:

NLS User Services
Center for Human Resource Research
921 Chatham Lane, Suite 100
Columbus, OH 43221-2418
(614) 442-7366
usersvc@postoffice.chrr.ohio-state.edu

Variable Index

FP_ADENRCH, 121
FP_ADHRISK, 110
FP_ADPENVR, 116
FP_PHBROKED, 79
FP_PHLIMITS, 73
FP_PPRELAT, 9
FP_PPRELIG, 99
FP_PYFBEHS, 138
FP_PYMBEHS, 144
FP_YFMONIT, 48
FP_YFMRELAT, 2
FP_YFPSTYL, 87
FP_YFSUPP, 24
FP_YHBROKED, 65
FP_YHLIMITS, 59
FP_YHROUTIN, 41
FP_YMFRELAT, 2
FP_YMMONIT, 48
FP_YMPSTYL, 87
FP_YMSUPP, 24
FP_YNRFMONIT, 48
FP_YNRFPSTYL, 87
FP_YNRFSUPP, 24
FP_YNRMMONIT, 48
FP_YNRMPSTYL, 87
FP_YNRMSUPP, 24
FP_YYCRIMI, 150
FP_YYFBEHS, 126
FP_YYMBEHS, 132
FP_YYSUBS, 155
PC12-013, 83
PC12-030, 19
PC12-031, 19
PC12-032, 19
YSAQ-032, 87
YSAQ-033, 87
YSAQ-053, 87
YSAQ-054, 87
YSAQ-085, 87
YSAQ-086, 87
YSAQ-128, 87
YSAQ-129, 87
YSAQ-174, 87
YSAQ-175, 87
YSAQ-219, 87
YSAQ-220, 87
YSAQ-248, 71
YSAQ-250, 72
YSAQ-252, 72
YSAQ-280, 16
YSAQ-281, 16
YSAQ-282, 16
YSAQ-351A, 39

Family Process Measures

Parents' Marital Relationship–Youth Report

Description & Relevance:

Numerous studies indicate that the marital relationship of the youth's parents can affect child outcomes (cf., Conger & Elder, 1994; Emery & O'Leary, 1984; Hetherington, Bridges, & Insabella, 1998; Shaw & Emery, 1987).

Source of Items

These items were adapted from items developed by Rand Conger and Katherine Jewsbury Conger for use in the IOWA Youth and Family Project (IYFP), a study of the relationship between economic hardships, psychological well-being and family relations among rural farm families (Conger & Elder, 1994).

Parallel items were asked of the youth's parent.

Items and Response Categories:

1. *Does s/he scream at him/her when s/he is angry? (reverse code)*
2. *Is s/he fair and willing to compromise when they disagree?*
3. *Does s/he express affection or love for him/her?*
4. *Does s/he insult or criticize him/her or his/her ideas? (reverse code)*
5. *Does s/he encourage or help him/her with things that are important to him/her?*
6. *Does s/he blame him/her for her/his problems? (reverse code)*

The responses were measured using a 5-point scale:

Never	Rarely	Sometimes	Usually	Always
0	1	2	3	4

Scale Creation:

Two youth-report measures of the parents' marital relationship are available:

1) Residential mother is supportive of residential father.
2) Residential father is supportive of residential mother.

The responses to the six items were summed; scores could range from 0 to 24 points. Higher scores indicate a more positive marital relationship.

Note that analyses are restricted to youth with two residential parents. These parents may be biological or step parents.

Variable Names:

Residential mother is supportive of residential father: FP_YMFRELAT
Residential father is supportive of residential mother: FP_YFMRELAT

Age of Youth:

12–14 years (for both measures)

Frequencies:

Youth report of Mom acts toward Dad (higher is more positive)

FP_YMFRELAT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	0.1	5	0.2
2	1	0.0	6	0.2
3	2	0.1	8	0.3
4	4	0.1	12	0.4
5	10	0.3	22	0.7
6	4	0.1	26	0.8
7	10	0.3	36	1.1
8	23	0.7	59	1.8
9	17	0.5	76	2.4
10	26	0.8	102	3.2
11	45	1.4	147	4.6
12	73	2.3	220	6.9
13	78	2.4	298	9.3
14	128	3.9	424	13.3
15	142	4.5	568	17.8
16	192	6.0	760	23.8
17	218	6.8	978	30.6
18	299	9.4	1277	40.0
19	350	10.9	1624	50.9
20	364	11.4	1991	62.4
21	320	10.0	2311	72.4
22	344	10.8	2655	83.2
23	282	8.8	2937	92.0
24	254	8.0	3191	100.0

Youth report of Dad acts toward Mom (higher is more positive)

FP_YFMRELAT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	2	0.1	2	0.1
1	6	0.2	8	0.3
2	1	0.0	9	0.3
3	3	0.1	12	0.4
4	8	0.3	20	0.6
5	10	0.3	30	0.9
6	12	0.4	42	1.3
7	17	0.5	59	1.9
8	22	0.7	81	2.5
9	34	1.1	115	3.6
10	29	0.9	144	4.5
11	59	1.8	203	6.4
12	74	2.3	277	8.7
13	81	2.5	358	11.2
14	108	3.4	465	14.6
15	124	3.9	590	18.5

The data depict relations that tend to be positive but show considerable variation, as well.

Data Quality

A score on each scale of the parent's marital relationship was obtained for respondents who answered at least five of the six questions. Respondents who answered only five of the six questions were assigned a weighted score based on the 24-point scale (i.e., rawscore *(6/6-missing)). Respondents who answered fewer than five questions were coded as missing on the given parent's marital relationship scale. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Residential mother is supportive of R father	3191	15	18.81	3.85
Residential father is supportive of R mother	3189	2	19.00	4.28

Internal Consistency/Reliability

Cronbach's alpha for these scales are considered good in terms of consistency/reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Residential mother is supportive of R father	.74
Residential father is supportive of R mother	.81

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity for these two parents' marital relationship scales. The data presented are cross-sectional because longitudinal data are not available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior as expected based on theory or previous research.

For purposes of construct and predictive validity, a three-level variable for youth report of the parents' marital relationship was created. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more supportive") and the bottom third ("less supportive").

Given the stress associated with living in low-income families, it is expected that low-income couples have a less positive relationship (Ehrle & Moore, 1999). Other evidence suggestive of validity includes whether the parents' marital relationship differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Mother's report of Residential Father's support of her for the top and bottom thirds of Youth report of Residential Father's support of Residential Mother.

Parent and youth reports of the parents' marital relationship are strongly associated. Specifically, youth who reported that their residential father was "more supportive" of their residential mother had residential mothers who rated their spouse as more supportive.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Mother's Report of Residential Father's Support of her by Youth Report of Residential Father's Support of Residential Mother (less vs. more supportive)

	Youth report– Residential Father is Less Supportive of Residential Mother	Youth report– Residential Father is More Supportive of Residential Mother	t-value
Residential Father's support of Mother's Report of her (range: 0-24)	13.44 (.12)	16.34 (.11)	17.30***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Youth report of Parents' Marital Relationship.

The quality of the parents' marital relationship is strongly and negatively correlated with the frequency of youth-reported behavior problems. Youth who reported that their residential mothers were supportive of their residential fathers reported fewer instances of substance abuse, delinquency, and behavior problems. Similarly, youth who reported that their residential fathers were supportive of their residential mothers also reported fewer instances of substance use, delinquency, and behavior problems.

Means, standard errors, and t-values are reported in the following tables.

Mean Scores for Youth Behavior Problems by Youth Report of their Mother's relationship to their Father (Less vs. More supportive)

	Youth report– Residential Mother is Less Supportive of Residential Father	Youth report– Residential Mother is More Supportive of Residential Father	t-value
Youth Report of Substance Use (range:0–3)	0.88 (.03)	0.55 (.03)	-8.31***
Youth Report of Delinquency (range: 0–10)	1.42 (.05)	0.73 (.04)	-10.88***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.58 (.07)	1.51 (.06)	-11.50***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.55 (.07)	1.69 (.06)	-9.85***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.37 (.08)	0.93 (.07)	-4.37***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.91 (.09)	1.41 (.08)	-4.08***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Scores for Youth Behavior Problems by Youth Report of their Father's relationship to their Mother (Less vs. More supportive)

	Youth report– Residential Father is Less Supportive of Residential Mother	Youth report– Residential Father is More Supportive of Residential Mother	t-value
Youth Report of Substance Use (range: 0–3)	0.91 (.03)	0.55 (.03)	-8.80***
Youth Report of Delinquency (range: 0–10)	1.41 (.05)	0.77 (.05)	-9.62***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.57 (.07)	1.57 (.07)	-10.54***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.55 (.07)	1.66 (.06)	-9.72***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.34 (.08)	0.99 (.07)	-3.39***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.77 (.10)	1.51 (.08)	-1.99*

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Parents' Marital Relationship for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Youth in families with incomes greater than 200% of the poverty line reported greater support by the residential father toward the residential mother than youth in families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Youth Report of Parents' Marital Relationship by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Residential Mother's Support of Residential Father (range: 0–24)	18.50 (.26)	19.03 (.11)	1.89+
Residential Father's Support of Residential Mother (range: 0–24)	18.31 (.29)	19.28 (.12)	3.08**

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Conger, R. D., & Elder, G.H. Jr. (1994). Families in troubled times: Adapting to change in rural America. Aldine de Gryyter: New York.

Ehrle, J. L. & Moore, K. A. (1999). Benchmarking Measures of Child and Family Well-Being in the NSAF. Draft at Child Trends, Inc.

Emery, R. E., & O'Leary, K.D. (1984). Marital discord and child behavior problems in a non-clinical sample. Journal of Abnormal Psychology, 12, 411-420.

Hetherington, E. M., Bridges, M., Insabella, G. M. (1998). What matters? What does not? Five perspectives on the association between marital transitions and children's adjustment. American Psychologist, 53 (2), 167-184.

Shaw, D.S. & Emery, R. E. (1987). Parental conflict and other correlates of the adjustment of school-age children whose parents have separated. Journal of Abnormal Child Psychology,15, 269-281.

Family Process Measures

Parents' Marital Relationship–Parent Report

Description & Relevance:

Numerous studies indicate that the marital relationship of the youth's parents can affect child outcomes (cf., Conger & Elder, 1994; Emery & O'Leary, 1984; Shaw & Emery, 1987).

Source of Items

These items were adapted from items developed by Rand Conger and Katherine Jewsbury Conger for use in the IOWA Youth and Family Project (IYFP), a study of the relationship between economic hardships, psychological well-being and family relations among rural farm families (Conger & Elder, 1994).

Parallel items are asked of the youth.

Items and Response Categories:

1. *How often is he or she fair and willing to compromise when you have a disagreement?*
2. *How often does he or she scream or yell at you when he or she is angry? (reverse code)*
3. *How often does he or she insult or criticize you or your ideas? (reverse code)*
4. *How often does he or she express affection or love for you?*
5. *How often does he or she encourage or help you to do things that are important to you?*
6. *How often does he or she blame you for his or her problems? (reverse code)*

The responses were measured on a 5-point scale:

Never	Rarely	Sometimes	Usually	Always
0	1	2	3	4

Scale Creation

One parent-report measure of the parents' marital relationship is available:

> The respondent's (usually the residential mother) rating of how her spouse (i.e., husband) treats her (Residential Mother's Report of Support from Residential Father).

The responses to the six items were summed; scores could range from 0 to 24 points. Higher scores indicate a more positive marital relationship.

Note that analyses are restricted to youth with two residential parents. These parents may be biological or step parents.

Variable Name: FP_PPRELAT

Age of Youth: 12–16 years

Frequencies:

Parents' Marital Relationship Scale (higher is more positive)

FP_PPRELAT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	7	0.2	7	0.2
1	2	0.1	9	0.2
2	9	0.2	18	0.5
3	12	0.3	30	0.8
4	18	0.5	48	1.2
5	31	0.8	79	2.0
6	60	1.5	139	3.5
7	66	1.7	205	5.2
8	55	1.3	258	6.5
9	90	2.3	350	8.8
10	141	3.6	491	12.4
11	179	4.5	670	16.9
12	234	5.9	904	22.8
13	253	6.4	1157	29.2
14	344	8.7	1501	37.9
15	408	10.3	1909	48.1
16	441	11.1	2350	59.3
17	476	12.0	2826	71.3
18	445	11.2	3271	82.5
19	359	9.0	3629	91.5
20	263	6.6	3893	98.2
21	22	0.6	3915	98.7
22	18	0.5	3933	99.2
23	17	0.4	3950	99.6
24	15	0.4	3965	100.0

Again, considerable variation can be noted, though most relationships are described fairly positively.

Psychometric Assessment:

Data Quality

A score on the Parents' Marital Relationship Scale was obtained for respondents who answered at least five of the six items. Respondents who answered only five of the six questions were assigned a weighted score based on the 24-point scale (i.e., rawscore * (6/6-missing)). Respondents who answered fewer than five items were coded as missing. However, little missing data occurred.

Measure	N	N missing	Mean	SD
Residential Mother's Report of Support from Residential Father	3965	40	15.04	3.82

Internal Consistency/Reliability

Cronbach's alpha for these scales are considered good in terms of consistency/reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Residential Mother's Report of Support from Residential Father	.83

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity for parent report of their marital relationship. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior as expected based on theory or previous research.

For purposes of construct and predictive validity, a three-level variable for parent report of the parents' marital relationship was created. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more supportive") and the bottom third ("less supportive").

Given the stress associated with living in low-income families, it is expected that low-income couples have a less positive relationship (Ehrle & Moore, 1999). Other evidence suggestive of validity includes whether the parents' marital relationship differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Residential Father's support of Residential Mother for the top and bottom thirds of Mother's report of Residential Father's support of her.

Youth and parent reports are highly related. Specifically, parents (usually residential mothers) who rated their spouse (i.e., residential fathers) as being more supportive had youth who also rated their residential fathers as being more supportive of their residential mothers.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Youth Report of Residential Father's Support of Residential Mother by Mother's Report of Residential Father's Support of Her (less vs. more supportive)

	R Mother report– Less Support from Residential Father	R Mother report– More Support from Residential Father	t-value
Youth Report of Residential Father's Support of Residential Mother (range: 0–24)	17.01 (.14)	20.66 (.14)	18.21***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Parent's report of Parents' Marital Relationship.

As anticipated based on previous research (Cherlin, et al., 1991), when parent report a more positive marital relationship, youth report fewer behavior problems, except for the males on the Behavioral and Emotional Problems Scale. Parents (usually residential mothers) who rated their spouses (i.e., residential fathers) as being supportive had youth who reported fewer instances of substance use, delinquency, and, for girls, fewer behavior problems. Parents in "more supportive" marriages also reported fewer youth behavior problems.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Youth Behavior Problems by Parent Report of the Parent's Relationship to their Spouse (Less vs. More supportive)

	R Mother report– Less Support from Residential Father	R Mother report– More Support from Residential Father	t-value
Youth Report of Substance Use (range:0–3)	0.90 (.03)	0.77 (.03)	-3.12**
Youth Report of Delinquency (range: 0–10)	1.25 (.05)	1.05 (.05)	-2.91**
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.25 (.07)	1.94 (.07)	-3.01**
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.07 (.07)	2.05 (.07)	-0.26
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.61 (.07)	0.95 (.07)	-6.26***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.87 (.09)	1.43 (.09)	-3.56***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Parents' Marital Relationship for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Residential mothers in families with incomes greater than 200% of the poverty line rated their spouses significantly higher on support than residential mothers in families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Parent Report of Parents' Marital Relationship by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Residential Mother's Report of Support from Residential Father (range: 0–24)	14.53 (.21)	15.28 (.09)	3.18**

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Cherlin, A. J., Furstenberg, F. F., Chase-Lansdale, P. L., Kiernan, K. E., Robins, P. K., Morrison, D. R., & Teitler, J. O (1991). Longitudinal studies of effects of divorce on children in Great Britain and the United States, Science, 252,1386-1389.

Conger, R. D., & Elder, G.H. Jr. (1994). Families in troubled times: Adapting to change in rural America. Aldine de Gryyter: New York.

Ehrle, J. L. & Moore, K. A. (1999). Benchmarking Measures of Child and Family Well-Being in the NSAF. Draft at Child Trends, Inc.

Emery, R. E., & O'Leary, K.D. (1984). Marital discord and child behavior problems in a non-clinical sample. Journal of Abnormal Psychology, 12, 411-420.

Shaw, D.S. & Emery, R. E. (1987). Parental conflict and other correlates of the adjustment of school-age children whose parents have separated. Journal of Abnormal Child Psychology,15, 269-281.

Family Process Measures

Estranged Parents' Relationship–Youth Report

Source of Items

The first item (contact of estranged parents) used in the NLSY 97 questionnaire was modified from National Survey of Family and Households (NSFH-2). This question was asked of youth ages 10 –17 in the NSFH.

The items about the parents' behavior toward each other were developed by researchers at Child Trends.

Items and Response Categories:

1. *Now think about the current circumstances between your natural or biological mother and father. In the past year, about how many times have your natural or biological parents spoken with each other, either face-to-face or on the phone. Would you say*

   0 NEVER
   1 ONCE OR TWICE
   2 3-6 TIMES
   3 7-11 TIMES
   4 ABOUT ONCE A MONTH
   5 ABOUT TWICE A MONTH
   6 ABOUT ONCE A WEEK
   7 SEVERAL TIMES A WEEK
   8 ALMOST EVERY DAY
   9 OTHER PARENT DECEASED

2. *Overall, would you say the behavior of your biological mother toward your biological father is...*

   7 VERY FRIENDLY
   6 FRIENDLY
   5 MIXED - MORE FRIENDLY THAN UNFRIENDLY
   4 NEUTRAL
   3 MIXED - MORE UNFRIENDLY THAN FRIENDLY
   2 UNFRIENDLY
   1 VERY UNFRIENDLY
   0 AS HOSTILE AS YOU CAN IMAGINE

3. *And overall, would you say the behavior of your biological father toward your biological mother is...*

   7 VERY FRIENDLY
   6 FRIENDLY
   5 MIXED - MORE FRIENDLY THAN UNFRIENDLY
   4 NEUTRAL
   3 MIXED - MORE UNFRIENDLY THAN FRIENDLY
   2 UNFRIENDLY
   1 VERY UNFRIENDLY
   0 AS HOSTILE AS YOU CAN IMAGINE

Scale Creation: Not applicable

Variable Name:

Times Bio Mother and Bio Father Spoke in Last Year: YSAQ-280

Behavior of Bio Mother Toward Bio Father: YSAQ-281

Behavior of Bio Father Toward Bio Mother: YSAQ-282

Age of Youth: 12–14 years

Frequencies:

TIMES BIO PARS SPOKE LAST YR? 1997

R0347600	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	120	24.9	120	24.9
1	83	17.2	203	42.1
2	52	10.8	255	52.9
3	35	7.3	290	60.2
4	24	5.0	314	65.1
5	30	6.2	344	71.4
6	49	10.2	393	81.5
7	20	4.1	413	85.7
8	62	12.9	475	98.5
9	7	1.5	482	100.0

BEHAVIOR BIO MOTH TO BIO FATH 1997

R0347700	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	12	3.3	12	3.3
1	13	3.6	25	6.9
2	31	8.6	56	15.5
3	29	8.0	85	23.5
4	46	12.7	131	36.3
5	72	19.9	203	56.2
6	75	20.8	278	77.0
7	83	23.0	361	100.0

BEHAVIOR BIO FATH TO BIO MOTH 1997

R0347800	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	8	2.2	8	2.2
1	14	3.9	22	6.1
2	19	5.3	41	11.4
3	21	5.8	62	17.2
4	68	18.9	130	36.1
5	58	16.1	188	52.2
6	90	25.0	278	77.2
7	82	22.8	360	100.0

Data Quality

Measure	N	N missing	Mean	SD
R0347600	482	19	3.18	2.94
R0347700	361	2	4.81	1.93
R0347800	360	3	4.98	1.80

Family Process Measures

Estranged Parents' Relationship–Parent Report

Source of Items

The first item (frequency of contact of estranged parents) used in the NLSY 97 questionnaire was modified from National Survey of Family and Households (NSFH-2). The items about the parents' behavior toward each other were developed by researchers at Child Trends.

Items and Response Categories:

1. *Now I would like to ask you about your contact with [this youth]'s [non-household mother/father]. In the past year, how many times have you spoken with [this youth]'s [non-household mother/father] either face-to-face or on the phone?*

   0 - 1000+

2. *Overall, would you say YOUR behavior towards [him/her] is...*

   7 VERY FRIENDLY
   6 FRIENDLY
   5 MIXED - MORE FRIENDLY THAN UNFRIENDLY
   4 NEUTRAL
   3 MIXED - MORE UNFRIENDLY THAN FRIENDLY
   2 UNFRIENDLY
   1 VERY UNFRIENDLY
   0 AS HOSTILE AS YOU CAN IMAGINE

3. *How about [his/her] behavior towards* you?

   7 VERY FRIENDLY
   6 FRIENDLY
   5 MIXED - MORE FRIENDLY THAN UNFRIENDLY
   4 NEUTRAL
   3 MIXED - MORE UNFRIENDLY THAN FRIENDLY
   2 UNFRIENDLY
   1 VERY UNFRIENDLY
   0 AS HOSTILE AS YOU CAN IMAGINE

Scale Creation: Not applicable

Variable Names:

Responding Parent's Contact with R's Non-HH Bio Parent in Last Year: PC12-030

Responding Parent's Behavior to Non-HH Bio Parent: PC12-031

Non-HH Bio Parent's Behavior to Responding Parent: PC12-032

Age of Youth: 12–16 years

Frequencies:

PR CONTACT R NHH BIOPAR LAST YR? 1997

R0691400	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	620	28.9	620	28.9
1	122	5.7	742	34.5
2	114	5.3	856	39.9
3	88	4.1	944	43.9
4	50	2.3	994	46.3
5	81	3.8	1075	50.0
6	58	2.7	1133	52.7
7	13	0.6	1146	53.4
8	11	0.5	1157	53.9
9	3	0.1	1160	54.0
10	81	3.8	1241	57.8
12	67	3.1	1308	60.9
15	34	1.6	1342	62.5
16	1	0.0	1343	62.5
18	2	0.1	1345	62.6
20	71	3.3	1416	65.9
24	31	1.4	1447	67.4
25	27	1.3	1474	68.6
26	6	0.3	1480	68.9
30	43	2.0	1523	70.9
34	1	0.0	1524	70.9
35	2	0.1	1526	71.0
36	12	0.6	1538	71.6
39	1	0.0	1539	71.6
40	11	0.5	1550	72.2
45	3	0.1	1553	72.3
48	4	0.2	1557	72.5
50	81	3.8	1638	76.3
52	99	4.6	1737	80.9
54	1	0.0	1738	80.9
55	2	0.1	1740	81.0
60	11	0.5	1751	81.5
65	1	0.0	1752	81.6
70	3	0.1	1755	81.7
72	2	0.1	1757	81.8
75	8	0.4	1765	82.2
77	1	0.0	1766	82.2
80	2	0.1	1768	82.3
85	1	0.0	1769	82.4
90	1	0.0	1770	82.4
95	1	0.0	1771	82.4

PR CONTACT R NHH BIOPAR LAST YR? 1997 (continued)

R0691400	Frequency	Percent	Cumulative Frequency	Cumulative Percent
96	1	0.0	1772	82.5
99	2	0.1	1774	82.6
100	69	3.2	1843	85.8
103	1	0.0	1844	85.8
104	11	0.5	1855	86.4
105	1	0.0	1856	86.4
110	3	0.1	1859	86.5
120	5	0.2	1864	86.8
125	2	0.1	1866	86.9
130	1	0.0	1867	86.9
150	26	1.2	1893	88.1
156	5	0.2	1898	88.4
170	1	0.0	1899	88.4
175	1	0.0	1900	88.5
183	1	0.0	1901	88.5
200	20	0.9	1921	89.4
208	1	0.0	1922	89.5
250	5	0.2	1927	89.7
252	1	0.0	1928	89.8
260	2	0.1	1930	89.9
265	1	0.0	1931	89.9
275	1	0.0	1932	89.9
285	1	0.0	1933	90.0
300	38	1.8	1971	91.8
340	2	0.1	1973	91.9
350	6	0.3	1979	92.1
352	2	0.1	1981	92.2
356	1	0.0	1982	92.3
360	9	0.4	1991	92.7
362	1	0.0	1992	92.7
365	75	3.5	2067	96.2
396	1	0.0	2068	96.3
400	2	0.1	2070	96.4
450	1	0.0	2071	96.4
454	1	0.0	2072	96.5
500	5	0.2	2077	96.7
700	1	0.0	2078	96.7
890	1	0.0	2079	96.8
900	4	0.2	2083	97.0
991	1	0.0	2084	97.0
999	64	3.0	2148	100.0

PR BEHAVIOR TO NHH BIOPAR 1997

R0691500	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	45	3.0	45	3.0
1	39	2.6	84	5.5
2	52	3.4	136	8.9
3	149	9.8	285	18.7
4	321	21.0	606	39.7
5	229	15.0	835	54.8
6	429	28.1	1264	82.9
7	261	17.1	1525	100.0

NHH BIO PAR BEHAVIOR TO PR? 1997

R0691600	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	62	4.1	62	4.1
1	66	4.3	128	8.4
2	59	3.9	187	12.3
3	145	9.5	332	21.8
4	260	17.1	592	38.9
5	203	13.3	795	52.2
6	437	28.7	1232	80.9
7	291	19.1	1523	100.0

Data Quality

Measure	N	N missing	Mean	SD
R0691400	2148	78	76.43	192.11
R0691500	1525	3	4.87	1.73
R0691600	1523	5	4.81	1.91

Family Process Measures

Parent-Youth Relationship–Youth Report

Description & Relevance:

Parents serve as role models and engage (or do not engage) in parenting behaviors that shape the development of their youth. While the role of the peer group increases during adolescence, the role of the parents remains substantial for most youth. Different disciplines use different terminology (e.g., parenting, social capital, socialization, family processes) but the importance of parental behavior in several domains is widely (though not universally, e.g., Harris, 1998) recognized. In particular, research has demonstrated the continued importance of a supportive parental relationship to adolescents' well-being and development (cf., Coombs & Paulson, 1988; Hoffman, Ushpiz, & Levy-Shiff, 1988). Close and supportive parent-adolescent relationships can protect youth against negative outcomes such as substance use and delinquent behaviors (Blum, & Rinehart, 1997).

Source of Items

Some of these items were adapted from items developed by Rand Conger and Katherine Jewsbury Conger for use in the IOWA Youth and Family Project (IYFP), a study of the relationship between economic hardships, psychological well-being and family relations among rural farm families. (Conger & Elder, 1994).

Items and Response Categories

1. *I think highly of him/her.*
2. *S/he is a person I want to be like.*
3. *I really enjoy spending time with him/her.*

The three responses above were measured on a 5-point scale:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
0	1	2	3	4

In addition, the five items below assess the adolescent's perception of how supportive each parent is of the adolescent.

4. *How often does s/he praise you for doing well?*
5. *How often does s/he criticize you or your ideas? (reverse code)*
6. *How often does s/he help you do things that are important to you?*
7. *How often does s/he blame you for her problems? (reverse code)*
8. *How often does s/he make plans with you and cancel for no good reason? (reverse code)*

These five responses were also measured on a 5-point scale:

Never	Rarely	Sometimes	Usually	Always
0	1	2	3	4

Scale Creation

The Parent-Youth Relationship Scale was created for each of the four possible parental figures:

1) Residential mother
2) Residential father
3) Non-residential biological mother
4) Non-residential biological father

The responses to the eight items were summed; scores could range from 0 to 32 points. Higher scores indicate a more positive relationship.

Variable Names:

Relationship with Residential mother: FP_YMSUPP

Relationship with Residential father: FP_YFSUPP

Relationship with Non-residential biological mother: FP_YNRMSUPP

Relationship with Non-residential biological father: FP_YNRFSUPP

Age of Youth: 12-14 years

Frequencies

Youth Report, Relationship with Residential Mother (higher is more supportive)

FP_YMSUPP	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	2	0.0	2	0.0
4	2	0.0	4	0.1
5	2	0.0	6	0.1
6	5	0.1	11	0.2
7	2	0.0	13	0.2
8	10	0.2	23	0.4
9	5	0.1	28	0.5
10	15	0.3	43	0.8
11	30	0.6	73	1.4
12	34	0.6	107	2.0
13	30	0.6	137	2.6
14	53	1.0	190	3.6
15	49	0.9	239	4.6
16	63	1.2	302	5.8
17	113	2.2	415	7.9
18	122	2.3	537	10.3
19	160	3.0	696	13.3
20	188	3.6	885	16.9
21	201	3.8	1086	20.7
22	263	5.0	1349	25.7
23	286	5.5	1635	31.2
24	388	7.4	2023	38.6
25	428	8.2	2451	46.8
26	421	8.0	2872	54.8
27	467	8.9	3339	63.7
28	540	10.3	3879	74.0
29	429	8.2	4308	82.2
30	393	7.5	4701	89.7
31	299	5.7	5000	95.4
32	239	4.6	5239	100.0

Youth Report, Relationship with Residential Father (higher is more supportive)

FP_YFSUPP	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1	0.0	1	0.0
1	1	0.0	2	0.1
2	2	0.1	4	0.1
3	3	0.1	7	0.2
4	7	0.2	14	0.4
5	4	0.1	18	0.5
6	10	0.3	28	0.7
7	11	0.3	39	1.0
8	17	0.4	56	1.4
9	23	0.6	78	2.0
10	24	0.6	102	2.6
11	19	0.5	122	3.1
12	28	0.7	150	3.8
13	35	0.9	185	4.7
14	48	1.2	233	5.9
15	53	1.3	286	7.2
16	72	1.8	358	9.0
17	95	2.4	453	11.4
18	94	2.3	546	13.8
19	136	3.4	683	17.2
20	151	3.8	834	21.0
21	185	4.7	1019	25.7
22	198	4.9	1217	30.7
23	235	5.9	1452	36.6
24	263	6.6	1715	43.2
25	267	6.7	1981	49.9
26	280	7.0	2261	57.0
27	337	8.5	2599	65.5
28	311	7.8	2910	73.3
29	289	7.3	3199	80.6
30	277	7.0	3476	87.6
31	266	6.7	3742	94.3
32	226	5.7	3968	100.0

Youth Report, Relationship with Non-Residential Biological Mother (higher is more supportive)

FP_YNRMSUPP	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	2	0.7	2	0.7
2	1	0.4	3	1.1
4	3	1.1	6	2.2
6	1	0.4	7	2.6
7	2	0.7	9	3.4
8	3	1.1	12	4.5
9	3	1.1	15	5.6
11	4	1.5	19	7.1
12	7	2.6	26	9.7
13	5	1.9	31	11.6
14	6	2.2	37	13.8
15	6	2.2	43	16.0
16	7	2.6	50	18.7
17	3	1.1	53	19.8
18	9	3.0	61	22.8
19	6	2.2	68	25.4
20	15	5.6	83	31.0
21	10	3.7	93	34.7
22	17	6.3	110	41.0
23	20	7.5	130	48.5
24	8	3.0	138	51.5
25	23	8.6	161	60.1
26	17	6.3	178	66.4
27	13	4.9	191	71.3
28	21	7.8	212	79.1
29	20	7.5	232	86.6
30	13	4.9	245	91.4
31	9	3.4	254	94.8
32	14	5.2	268	100.0

Youth Report, Relationship with Non-Residential Biological Father (higher is more supportive)

FP_YNRFSUPP	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	3	0.4	3	0.4
2	1	0.1	4	0.6
4	3	0.4	7	1.0
5	6	0.8	13	1.8
6	4	0.6	17	2.4
7	1	0.1	18	2.5
8	13	1.8	31	4.3
9	10	1.4	41	5.7
10	7	1.0	48	6.6
11	11	1.5	59	8.2
12	18	2.5	77	10.7
13	18	2.5	95	13.1
14	18	2.5	113	15.6
15	19	2.6	132	18.3
16	22	3.0	154	21.3
17	30	4.1	184	25.4
18	33	4.4	216	29.9
19	34	4.7	251	34.7
20	37	5.1	288	39.8
21	38	5.3	326	45.1
22	31	4.3	357	49.4
23	40	5.5	397	54.9
24	56	7.7	453	62.7
25	35	4.8	488	67.5
26	41	5.7	529	73.2
27	49	6.8	578	79.9
28	33	4.6	611	84.5
29	47	6.5	658	91.0
30	28	3.9	686	94.9
31	16	2.2	702	97.1
32	21	2.9	723	100.0

As would be expected, most of the youth describe their relationship with their parents as quite supportive, although relationships with non-residential biological fathers are described as less supportive.

Psychometric Assessment:

Data Quality

Scores on the Parent-Youth Relationship Scale were obtained for respondents who answered at least six of the eight items. Respondents who answered six or seven of the eight items were assigned a weighted score based on the 32-point scale (i.e., rawscore * (8/8-missing)). Respondents who answered fewer than six items were

coded as missing on the Parent-Youth Relationship Scale. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Parent-Youth Relationship: Residential Mother	5239	4	25.06	4.83
Parent-Youth Relationship: Residential Father	3969	1	24.50	5.57
Parent-Youth Relationship: Non-Residential Biological Mother	268	0	22.69	6.82
Parent-Youth Relationship: Non-Residential Biological Father	724	7	21.57	6.58

Internal Consistency/Reliability

Cronbach's alpha for these scales are considered good in terms of consistency/ reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Parent-Youth Relationship: Residential Mother	.75
Parent-Youth Relationship: Residential Father	.82
Parent-Youth Relationship: Non-Residential Biological Mother	.85
Parent-Youth Relationship: Non-Residential Biological Father	.83

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity of youth reports of the Parent-Youth relationship scale. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior as expected based on theory or previous research.

For purposes of predictive validity, a three-level variable for youth report of parent-youth relationship was created. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more positive") and the bottom third ("less positive").

Other evidence suggestive of validity includes whether the parent-youth relationship differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

Elsewhere in the interview, youth were asked whom they would turn to first if they had an emotional or personal problem. Responses were coded as either a parent, another adult, a peer, or no one. Youth who identified a parent as a source of social support had the highest scores on the Parent-Youth Relationship Scale for their residential mother, residential father and non-residential father, compared to youth who did not identify a parent as a source of support. (There were no differences across source of social support in mean Parent-Youth Relationship Scale scores for youth reporting on their relationship with their non-residential mothers.)

Youth identifying a parent as "very supportive" on the single item from the Parenting Styles section, had higher scores on the parent-youth relationship scale compared to youth who identified this parent as "not very" or "somewhat" supportive.

An analysis of co-variance compared mean scores, adjusted for youth's age and gender, on Youth report of Parent-Youth Relationship for the multi-category source of social support variable.

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Parent-Youth Relationship for two categories of the single parent support item from the Parenting Style section: Very supportive vs. Not very/Somewhat supportive.

Means, standard errors, and t-values are reported in the tables below.

Residential Mother:

Mean Score of Parent-Youth Relationship by Source of Social Support

	Parents	Other Adults	Peers	No One	Group differences
Parent-Youth Relationship (range: 0–32)	26.16 (.09)	23.61 (.26)	23.82 (.11)	22.41 (.32)	PA > OA, PE, NO

Mean Score of Parent-Youth Relationship by One-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	20.69 (.11)	26.58 (.06)	-45.60***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Residential Father:

Mean Score of Parent-Youth Relationship by Source of Social Support

	Parents	Other Adults	Peers	No One	Group differences
Parent-Youth Relationship (range: 0–32)	25.37 (.12)	23.07 (.37)	23.50 (.15)	22.43 (.45)	PA > OA, PE, NO

Mean Score of Parent-Youth Relationship by One-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	19.64 (.12)	26.88 (.09)	-48.46***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Mother:

Mean Score of Parent-Youth Relationship by Source of Social Support

	Parents	Other Adults	Peers	No One	Group differences
Parent-Youth Relationship (range: 0–32)	23.28 (.63)	21.74 (1.11)	22.39 (.71)	22.13 (1.77)	None

Mean Score of Parent-Youth Relationship by One-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	18.15 (.52)	26.01 (.44)	-11.06***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Father:

Mean Score of Parent-Youth Relationship by Source of Social Support

	Parents	Other Adults	Peers	No One	Group differences
Parent-Youth Relationship (range: 0–32)	22.51 (.33)	20.23 (.80)	20.73 (.42)	19.09 (1.13)	PA > OA, PE, NO

Mean Score of Parent-Youth Relationship by One-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	18.47 (.27)	25.85 (.31)	-17.99***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Youth report of Parent-Youth Relationship.

A supportive parent-youth relationship is associated with fewer youth behavior problems in all comparisons, though the association falls short of statistical significance among youth describing their relationship with a non-residential biological mother. Specifically, youth reporting "more positive" relationship with their residential mothers, residential fathers, or with their non-residential fathers (that is, scores on the parent-youth relationship scale fall in the top third of the distribution) reported fewer instances of substance use, fewer delinquent acts, and fewer behavior problems than youth reporting a "less positive" relationship with their residential mothers, residential fathers, and with their non-residential fathers, respectively (i.e.,, scores on the parent-youth relationship scale in the bottom third of the distribution). In addition, girls reporting a "more positive" relationship with the non-residential mothers reported significantly fewer behavior problems than girls reporting a "less positive" relationship with the non-residential mother did. Other associations are in the expected direction but are not statistically significant. Standard errors are substantially larger for non-residential mothers, as well.

Means, standard errors, and t-values are reported in the following tables.

Residential Mother:

Mean Score of Youth Behavior Problems by Parent-Youth Relationship (More vs. Less Positive)

	"Less Positive"	"More Positive"	t-value
Youth Report of Substance Use (range:0–3)	0.97 (.02)	0.57 (.02)	-12.47***
Youth Report of Delinquency (range: 0–10)	1.65 (.03)	0.77 (.03)	-16.73***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.91 (.05)	1.59 (.05)	-18.38***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.65 (.05)	1.63 (.05)	-14.11***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.69 (.07)	1.05 (.05)	-7.42***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.22 (.08)	1.42 (.07)	-7.90***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Residential Father:

Mean Score of Youth Behavior Problems by Parent-Youth Relationship (More vs. Less Positive)

	"Less Positive"	"More Positive"	t-value
Youth Report of Substance Use (range: 0–3)	0.98 (.03)	0.52 (.03)	-12.57***
Youth Report of Delinquency (range: 0–10)	1.59 (.04)	0.69 (.03)	-14.94***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.72 (.06)	1.40 (.06)	-15.80***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.71 (.06)	1.63 (.05)	-13.38***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.53 (.07)	0.93 (.07)	-6.42***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.14 (.08)	1.25 (.07)	-8.11***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Mother:

Mean Score of Youth Behavior Problems by Parent-Youth Relationship (More vs. Less Positive)

	"Less Positive"	"More Positive"	t-value
Youth Report of Substance Use (range: 0–3)	1.16 (.12)	0.96 (.12)	-1.16
Youth Report of Delinquency (range: 0–10)	2.23 (.24)	1.74 (.22)	-1.49
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	3.19 (.25)	2.27 (.25)	-2.58*
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.76 (.26)	2.08 (.24)	-1.94+
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	2.35 (.42)	1.97 (.34)	-0.71
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.50 (.34)	1.48 (.29)	-2.30*

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Father:

Mean Score of Youth Behavior Problems by Parent-Youth Relationship (More vs. Less Positive)

	"Less Positive"	"More Positive"	t-value
Youth Report of Substance Use (range: 0–3)	1.11 (.07)	0.78 (.07)	-3.39***
Youth Report of Delinquency (range: 0–10)	1.82 (.12)	0.98 (.11)	-5.07***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.61 (.14)	1.86 (.16)	-3.56***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.67 (.17)	1.76 (.14)	-4.19***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	2.07 (.18)	1.37 (.20)	-2.59*
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.46 (.28)	1.59 (.21)	-2.50*

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Parent-Youth Relationship for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Youth living in families with incomes greater than 200% of the poverty line reported more positive relationships with the residential mother, residential father, and non-residential father than the youth living in families with income less than 50% of the poverty line. (There were no differences in mean scores on the Youth-Parent Relationship Scale for non-residential mothers, by poverty level.)

Means, standard errors, and t-values are reported in the tables below.

Residential Mother:

Mean Score of Parent-Youth relationship by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Parent-Youth Relationship (range: 0–32)	24.55 (.16)	25.49 (.13)	4.67***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Residential Father:

Mean Score of Parent-Youth relationship by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Parent-Youth Relationship (range: 0–32)	23.95 (.26)	25.26 (.15)	4.33***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Mother:

Mean Score of Parent-Youth relationship by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Parent-Youth Relationship (range: 0–32)	21.76 (.82)	23.29 (1.28)	1.00

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Father:

Mean Score of Parent-Youth relationship by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Parent-Youth Relationship (range: 0–32)	20.19 (.48)	23.25 (.65)	3.79***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Blum, R. W., & Rinehart, P. M. (1997). Reducing the risk: Connections that make a difference in the lives of youth. Minneapolis, MN: Division of General Pediatrics and Adolescent Health, University of Minnesota.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Conger, R.D., & Elder, G.H. Jr. (1994). Families in troubled times: Adapting to change in rural America. Aldine de Gryyter: New York.

Coombs, R.H., & Paulson, M.J. (1988). Contrasting family patterns of adolescent drug users and non-Users. Journal of Chemical Dependency and Treatment, 1, 59-72.

Harris, J. R. (1998). The nurture assumption: Why children turn out the way they do; parents matter less than you think and peers matter more. Free Press: New York.

Hoffman, M. A., Ushpiz, V., & Levy-Shiff, R. (1988). Social support and self-esteem in adolescence. Journal of Youth and Adolescence, 17, 307-316.

Family Process Measures

Sources of Social Support–Youth Report

Source of Items

This item was developed by researchers on the NLSY survey development team.

Items and Response Categories:

1. *If you had an emotional problem or personal relationship problem, who would you first turn to for help? Would you first turn to*

1	*YOUR BIOLOGICAL MOTHER?*
2	*YOUR BIOLOGICAL FATHER?*
3	*A STEP OR ADOPTIVE PARENT?*
4	*A BROTHER OR SISTER?*
5	*A RELATIVE UNDER AGE 18?*
6	*A RELATIVE OVER AGE 18?*
7	*A BOY FRIEND OR GIRL FRIEND?*
8	*ANOTHER FRIEND?*
9	*A TEACHER OR SCHOOL COUNSELOR?*
10	*A CLERGYMAN OR OTHER ADULT FROM YOUR PLACE OF WORSHIP?*
11	*A MENTAL HEALTH PROFESSIONAL?*
12	*SOMEONE ELSE?*
13	*NO ONE?*

Scale Creation: Not applicable

A four category version of this variable was used for validation of the Parent-Youth Relationship scale. However, we are not recommending any one particular coding of this question.

Variable Name: YSAQ-351A

Age of Youth: 12–14 years

Frequencies:

WHO TURN TO WITH PERSONAL PROBS? 1997

R0357300	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	2510	46.3	2510	46.3
2	424	7.8	2934	54.1
3	74	1.4	3008	55.5
4	485	8.9	3493	64.4
5	84	1.5	3577	66.0
6	146	2.7	3723	68.7
7	375	6.9	4098	75.6
8	901	16.6	4999	92.2
9	66	1.2	5065	93.5
10	18	0.3	5083	93.8
11	10	0.2	5093	94.0
12	91	1.7	5184	95.6
13	236	4.4	5420	100.0

Data Quality

Measure	N	N missing
R0357300	5420	24

Family Process Measures

Index of Family Routines–Youth Report

Description & Relevance:

Psychologists (e.g., Henry & Lovelace, 1995; O'Connor, Hetherington, & Clingempeel, 1997) emphasize the importance of a sense of belonging to a family unit and household organization as predictors of future youth success. Maccoby & Mnookin (1992) have found that family routines play an important role in both educational and behavioral outcomes among school-age children.

Source of Items

The items were modified from the Family Routines Inventory (FRI) (Jenson, James, Bryce, & Hartnett, 1983). Similar items have also been included in the National Commission on Children Survey of Children and Parents (1991) and the Early Childhood Longitudinal Study–Kindergarten cohort.

Items and Response Categories

1. *In a typical week, how many days from 0 to 7 do you eat dinner with your family?*
2. *In a typical week, how many days from 0 to 7 does housework get done when it is supposed to, for example cleaning up after dinner, doing dishes, or taking out the trash?*
3. *In a typical week, how many days from 0 to 7 do you do something fun as a family such as play a game, go to a sporting event, go swimming and so forth?*
4. *In a typical week, how many days from 0 to 7 do you do something religious as a family such as go to church, pray or read the scriptures together?*

These responses were measured on an 8-point scale:

0	1	2	3	4	5	6	7
No days/ Week						All seven days	

Index Creation

The Family Routines Index was created by summing responses to these four items; scores could range from 0 to 28. Higher scores indicate more days spent in routine activities with the family.

Variable Name: FP_YHROUTIN

Age of Youth: 12–14 years

Frequencies:

Youth Report of Family Routines Index (higher indicates more routines)

FP_YHROUTIN	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	128	2.4	128	2.4
1	14	0.3	142	2.6
2	19	0.4	161	3.0
3	31	0.6	192	3.6
4	33	0.6	225	4.2
5	59	1.1	284	5.3
6	54	1.0	338	6.3
7	158	2.9	496	9.2
8	138	2.6	634	11.7
9	155	2.9	789	14.6
10	206	3.8	995	18.4
11	246	4.6	1241	23.0
12	297	5.5	1538	28.5
13	343	6.4	1881	34.9
14	419	7.8	2300	42.6
15	471	8.7	2771	51.3
16	480	8.9	3251	60.2
17	433	8.0	3684	68.3
18	365	6.8	4049	75.0
19	295	5.5	4344	80.5
20	231	4.3	4575	84.8
21	253	4.7	4828	89.5
22	172	3.2	5000	92.6
23	100	1.9	5100	94.5
24	79	1.5	5179	96.0
25	69	1.3	5248	97.2
26	66	1.2	5314	98.5
27	14	0.3	5328	98.7
28	69	1.3	5397	100.0

Scores tend to cluster in the middle of the distribution, with considerable variation on both ends of the distribution.

Psychometric Assessment:

Data Quality

A score on the Index of Family Routines was obtained for respondents who answered at least three of the four items. Respondents who answered three of the four items were assigned a weighted based on the 28-point scale (i.e., rawscore * (4/4-missing)). Respondents who answered fewer than three items were coded as missing. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Index of Family Routines	5397	10	15.03	5.52

Internal Consistency/Reliability

Not applicable. (This is an index rather than a scale. That is, it is not assumed that the frequency of one family routine should necessarily be correlated (i.e., internally consistent) with the frequency of another family routine.)

Validity

We examined predictive validity and other evidence suggestive of validity for the Index of Family Routines. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior as expected based on theory or previous research.

For purposes of predictive validity, a three-level variable for youth report of the index of family routines was created. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more routine") and the bottom third ("less routine").

Other evidence suggestive of validity includes whether family routines differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

No other measure of family routines was collected in this cohort, therefore construct validity can not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Youth report of Index of Family Routines.

Youth who reported "more family routines" reported less autonomy in limit-setting, and their responding parent also reported less youth autonomy in limit-setting, compared to youth who reported "less family routines". In addition, youth who reported "more family routines" reported significantly fewer instances of substance use, delinquency and behavior problems. Parents also reported fewer behavior problems for youth that reported "more family routines".

Means, standard errors, and t-values are reported in the following tables.

Mean Scores for Youth Report of Limit-Setting by the Index of Family Routines (more vs. less routine)

	"Less Routine"	"More Routine"	t-value
Youth Report of Limit-setting (range: 0–6)	2.99 (.05)	3.61 (.04)	9.88***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Scores for Parent Report of Limit-Setting by the Index of Family Routines (more vs. less routine)

	"Less Routine"	"More Routine"	t-value
Parent Report of Limit-setting (range: 0–6)	4.14 (.05)	4.47 (.04)	5.76***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Scores for Youth Behavior Problems by the Index of Family Routines (more vs. less routine)

	"Less Routine"	"More Routine"	t-value
Youth Report of Substance Use (range: 0–3)	1.02 (.02)	0.54 (.02)	-14.74***
Youth Report of Delinquency (range: 0–10)	1.49 (0.04)	0.89 (0.03)	-11.31***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.64 (.06)	1.81 (.05)	-11.23***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.58 (.06)	1.89 (.05)	-9.35***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.55 (.07)	1.19 (.06)	-4.11***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.07 (.08)	1.70 (.06)	-3.63***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Index of Family Routines for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

The data do not indicate that family routines differed by poverty level.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for the Index of Family Routines (Youth report) by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Youth Report of Routines (range: 0–28)	14.93 (.16)	15.24 (.14)	1.35

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Henry, C.S., & Lovelace, S.G. (1995). Family resources and adolescent family life satisfaction in remarried family households. Journal of Family Issues, 16, 765-786.

Jensen, E.W., James, S.A., Bryce, W.T. & Hartnett, S.A. (1983). The Family Routines Inventory: Development and validation. Social Sciences Medicine, 17, 201-211.

Maccoby, E.E. & Mnookin, R.H. (1992). Dividing the child: Social & legal dilemmas of custody. Cambridge, MA: Harvard University Press.

O'Connor, T.G., Hetherington, E.M., & Clingempeel, W.G. (1997). Systems and bidirectional influence in families. Journal of Social and Personal Relationships, 14, 491-504.

Family Process Measures

Parental Monitoring–Youth Report

Description & Relevance:

Degree of parental monitoring has been linked to a variety of outcomes (e.g., conduct problems, lower scholastic achievement) as well as early sexual involvement (Buchanan, Maccoby, & Dornbusch, 1992; Weintraub, & Gold, 1991; Otto, & Atkinson, 1997).

Source of items

The specific items are standard questions used widely by the well-known researchers of the family (Hetherington, Cox, & Cox, 1982; Maccoby & Mnookin, 1992).

Items and Response Categories

1. *How much does he/she know about your close friends, that is, who they are?*
2. *How much does he/she know about your close friends' parents, that is, who they are?*
3. *How much does he/she know about who you are with when you are not at home?*
4. *How much does she know about who your teachers are and what you are doing in school?*

The responses were measured on a 5-point scale:

0	1	2	3	4
Knows Nothing	Knows Just a Little	Knows Some Things	Knows Most Things	Knows Everything

Scale Creation

The Parental Monitoring Scale was created for each of the four possible parental figures:

5) Residential mother
6) Residential father
7) Non-residential biological mother
8) Non-residential biological father

The responses to the four items were summed; scores could range from 0 to 16 points. Higher scores indicate greater parental monitoring (according to youth reports).

Variable Names:

Residential Mother's Monitoring: FP_YMMONIT

Residential Father's Monitoring: FP_YFMONIT

Non-Residential Mother's Monitoring: FP_YNRMMONIT

Non-Residential Father's Monitoring: FP_YNRFMONIT

Age of Youth: 12–14 years

Frequencies

Youth report of Residential Mother's Monitoring (higher indicates greater parental monitoring)

FP_YMMONIT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	11	0.2	11	0.2
1	45	0.9	56	1.1
2	51	1.0	107	2.0
3	77	1.5	184	3.5
4	146	2.8	330	6.3
5	169	3.2	499	9.5
6	239	4.6	738	14.1
7	320	6.1	1058	20.2
8	406	7.7	1464	27.9
9	445	8.5	1909	36.4
10	577	11.0	2486	47.4
11	645	12.3	3131	59.8
12	713	13.6	3844	73.4
13	602	11.5	4446	84.8
14	395	7.5	4841	92.4
15	220	4.2	5061	96.6
16	179	3.4	5240	100.0

Youth report of Residential Father's Monitoring (higher indicates greater parental monitoring)

FP_YFMONIT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	115	2.9	115	2.9
1	125	3.1	240	6.0
2	148	3.7	388	9.8
3	183	4.6	571	14.4
4	259	6.5	830	20.9
5	250	6.3	1080	27.2
6	246	6.2	1326	33.4
7	319	8.0	1645	41.4
8	373	9.4	2018	50.8
9	380	9.6	2398	60.4
10	350	8.8	2748	69.2
11	274	6.9	3022	76.1
12	330	8.3	3352	84.4
13	262	6.6	3614	91.0
14	183	4.6	3797	95.6
15	91	2.3	3888	97.9
16	83	2.1	3971	100.0

Youth report of Non-residential Mother's Monitoring (higher indicates greater parental monitoring)

FP_YNRMMONIT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	30	11.2	30	11.2
1	18	6.7	48	18.0
2	15	5.6	63	23.6
3	13	4.9	76	28.5
4	14	5.2	90	33.7
5	17	6.4	107	40.1
6	23	8.6	130	48.7
7	11	4.1	141	52.8
8	25	9.4	166	62.2
9	19	7.1	185	69.3
10	17	6.4	202	75.7
11	12	4.5	214	80.1
12	21	7.9	235	88.0
13	14	5.2	249	93.3
14	5	1.9	254	95.1
15	5	1.9	259	97.0
16	8	3.0	267	100.0

Youth report of Non-residential Father's Monitoring (higher indicates greater parental monitoring)

FP_YNRFMONIT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	194	26.7	194	26.7
1	76	10.5	270	37.1
2	68	9.4	338	46.5
3	62	8.5	400	55.0
4	64	8.8	464	63.8
5	51	7.0	515	70.8
6	36	5.0	551	75.8
7	29	4.0	580	79.8
8	37	5.1	617	84.9
9	27	3.7	644	88.6
10	19	2.6	663	91.2
11	15	2.1	678	93.3
12	20	2.8	698	96.0
13	10	1.4	708	97.4
14	9	1.2	717	98.6
15	3	0.4	720	99.0
16	7	1.0	727	100.0

Although relatively few of these youth aged 12-14 years reported no or almost no monitoring, there is considerable variation in the amount of monitoring provided by different parents. Levels of monitoring are higher for mothers than for fathers and are lowest for non-residential biological fathers.

Psychometric Assessment:

Data Quality

A score on the monitoring scale was obtained for respondents who answered at least three of the four items. Respondents who answered three of the four items were assigned a weighted score based on the 16-point scale (i.e., rawscore * 4/4-missing)). Respondents who answered fewer than three items were coded as missing. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Youth Report of Residential Mother's Monitoring	5240	3	10.24	3.30
Youth Report of Residential Father's Monitoring	3971	1	8.19	4.00
Youth Report of Non-Residential Mother's Monitoring	267	1	6.83	4.59
Youth Report of Non-Residential Father's Monitoring	727	4	3.95	4.00

Internal Consistency/Reliability

Cronbach's alpha for these scales are considered good in terms of consistency/ reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Youth Report of Residential Mother's Monitoring	.71
Youth Report of Residential Father's Monitoring	.81
Youth Report of Non-Residential Mother's Monitoring	.85
Youth Report of Non-Residential Father's Monitoring	.85

Validity

We examined predictive validity and other evidence suggestive of validity for the monitoring scales. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of predictive validity, a three-level variable for youth report of monitoring was created. Each level represents approximately one-third of the sample. Data shown below are for the top third ("higher monitoring") and the bottom third ("lower monitoring").

Other evidence suggestive of validity includes whether monitoring differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

No other measure of monitoring was collected in this cohort, thus the construct validity could not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Youth report of Parental Monitoring.

Means, standard errors, and t-values are reported in the following tables.

Residential Mother:

Residential mothers who were rated high on monitoring by their youth were also more likely to be rated by their youth as strict (vs. permissive). "High monitoring" residential mothers had youth who reported more parental limit-setting (though the parents themselves did not report more limit-setting) and had youth who reported fewer instances of substance use, delinquency, and behavior problems. "High monitoring" residential mothers also reported fewer behavior problems for their youth than the "lower monitoring" residential mothers.

Mean Score for Youth Report of Limit-setting by Residential Mother's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Limit-setting (range: 0–6)	3.03 (.05)	3.66 (.05)	9.02***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Parent Report of Limit-setting by Residential Mother's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Parent Report of Limit-setting (range: 0–6)	4.34 (.05)	4.33 (.04)	-0.15

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Youth Report of Parental Strictness by Residential Mother's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Residential Mother's Strictness (range: 0–1)	0.53 (.01)	0.62 (.01)	4.67***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Youth Behavior Problems, by Residential Mother's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Substance Use (range: 0–3)	1.03 (.02)	0.49 (.03)	-14.89***
Youth Report of Delinquency (range: 0–10)	1.76 (.04)	0.65 (.04)	-19.05***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	3.00 (.06)	1.48 (.05)	-18.70***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.65 (.05)	1.62 (.06)	-12.70***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.71 (.08)	0.97 (.06)	-7.51***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.23 (.08)	1.43 (.08)	-7.23***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Residential Father:

Residential fathers who were rated high on monitoring by their youth were also more likely to be rated by their youth as strict (vs. permissive). "High monitoring" residential fathers had youth who reported more parental limit-setting (though the parents themselves did not report more limit-setting) and had youth who reported fewer instances of substance use, delinquency, and behavior problems. "High monitoring" residential fathers also reported fewer behavior problems for their youth than the "lower monitoring" residential fathers.

Mean Score on Youth Report of Limit-setting by Residential Father's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Limit-setting (range: 0–6)	3.12 (.06)	3.65 (.05)	6.79***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Parent Report of Limit-setting by Residential Father's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Parent Report of Limit-setting (range: 0–6)	4.32 (.05)	4.31 (.05)	-0.14

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Youth Report of Parental Strictness by Residential Father's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Residential Father's Strictness (range: 0–1)	0.59 (.01)	0.65 (.01)	2.72**

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Youth Behavior Problems by Residential Father's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Substance Use (range: 0–3)	1.01 (.03)	0.48 (.03)	-13.74***
Youth Report of Delinquency (range: 0–10)	1.69 (.05)	0.61 (.04)	-16.98***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.76 (.06)	1.43 (.06)	-15.15***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.71 (.06)	1.58 (.06)	-13.04***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.51 (.07)	0.84 (.07)	-6.78***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.27 (.09)	1.36 (.07)	-7.77***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Mother:

Although patterns are all in the expected direction, none of the associations are statistically significant, hence there was no evidence that non-residential mothers' level of monitoring is related to youth or parent report of limit-setting, parental strictness, or youth or parent report of youth behavior problems.

Mean Score on Youth Report of Non Residential Mother's Strictness by Non-Residential Mother's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Non-residential Mother's Strictness (range: 0–1)	0.41 (.06)	0.52 (.06)	1.37

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Score on Youth Behavior Problems by Non-Residential Mother's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Substance Use (range: 0–3)	1.17 (.13)	0.87 (.13)	-1.62
Youth Report of Delinquency (range: 0–10)	2.05 (.25)	1.60 (.24)	-1.30
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.93 (.30)	2.28 (.26)	-1.62
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.49 (.25)	2.20 (.28)	-0.77
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	2.14 (.45)	1.89 (.31)	-0.45
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.23 (.36)	1.48 (.33)	-1.53

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Father:

Non-residential fathers who were rated high on monitoring by their youth were also more likely to be rated by their youth as strict (vs. permissive). "High monitoring" non-residential fathers had youth who reported fewer instances of substance use, delinquency, and, for girls, fewer behavior problems. High monitoring" non-residential fathers also reported fewer behavior problems for their daughters.

Mean Scores on Youth Report of Non Residential Father's Strictness by Non-Residential Father's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Non-residential Father's Strictness (range: 0–1)	0.36 (.04)	0.59 (.03)	4.76***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Mean Scores on Youth Behavior Problems by Non-Residential Father's Monitoring (Higher vs. Lower monitoring)

	Lower Monitoring	Higher Monitoring	t-value
Youth Report of Substance Use (range: 0–3)	0.99 (.07)	0.80 (.07)	-1.88+
Youth Report of Delinquency (range: 0–10)	1.58 (.13)	1.07 (.12)	-2.91**
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.43 (.16)	1.87 (.16)	-2.49*
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.44 (.17)	1.99 (.16)	-1.92+
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	2.15 (.20)	1.38 (.19)	-2.78**
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.24 (.28)	1.91 (.22)	-0.93

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Parental Monitoring for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Residential mothers, residential fathers, and non-residential fathers in families with incomes greater than 200% of the poverty line were rated higher on monitoring than residential mothers, residential fathers, and non-residential fathers, respectively, in families with incomes less than 50% of the poverty line.

The data do not suggest that non-residential mothers' monitoring differed by poverty level.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Youth Report of Parents' Monitoring by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Youth Report of Residential Mother's Monitoring (range: 0–16)	9.92 (.11)	10.78 (.09)	6.26***
Youth Report of Residential Father's Monitoring (range: 0–16)	7.81 (.19)	8.65 (.11)	3.86***
Youth Report of Non-residential Mother's Monitoring (range: 0–16)	6.87 (.53)	5.87 (.84)	-1.01
Youth Report of Non-residential Father's Monitoring (range: 0–16)	3.42 (.28)	4.48 (.38)	2.25*

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Buchanan, C.M., Maccoby, E.E., & Dornbush, S.M. (1992). Adolescents and their families after divorce: Three residential arrangements compared. Journal of Research on Adolescence, 2, 261-291.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Hetherington, E. M., Cox, M., & Cox, R. (1982). Effects of divorce on parents and children. In M. E. Lamb (Ed.), Nontraditional Families (pp. 233-288). Hillsdale, NJ: Erlbaum.

Maccoby, E. E. & Mnookin, R. H. (1992). Dividing the Child: Social and legal dilemmas of custody. Cambridge, MA: Harvard University Press.

Oho, L.B., & Atkinson, M.P. (1997). Parental involvement and adolescent involvement. Journal of Adolescent Research, 12, 68-89.

Weintraub, K.J., & Gold, M. (1991). Monitoring and delinquency. Criminal Behavior and Mental Health, 1, 268-281.

Family Process Measures

Control/Autonomy Limit-Setting–Youth Report

Description & Relevance:

These items parallel items about limit-setting asked of parents and serve as indicators of the degree to which youth are granted autonomy and/or parents have a role in setting limits in three areas: friends, curfew, and TV watching. The use of specific parallel items for parents and adolescents was intentional, since discrepancies across reporters may indicate a lack of clarity in who actually sets limits (Eccles, Buchanan, Flanagan, Fuligini, 1991; Erford, 1995).

Source of Items:

These items were modified from NLSY79. The respondents of the NLSY79 provided information about who made the rules regarding their behavior.

Parallel items were asked of the parent.

Items and Response Categories

Now we are going to name some things parents often set limits about. Thinking only about the parent or parents in your house, tell us if they set limits about these things or if they think you are old enough to decide for yourself.

1) *Who set the limits on how late you stay out at night?*
2) *Who set the limits on who you can hang out with?*
3) *Who set the limits on what kinds of tv shows or movies you can watch?*

The scale was measured on a 3-point scale:

1	2	3
Parent or Parents Set Limits	Parents Let Me Decide	My Parents and I Decide Jointly

Index Creation

The Youth Limits-Setting Index was created first by recoding response categories to: youth sets limits = 0; limit set jointly by both parent and youth = 1; and parents set limits = 2. The response categories where then summed for the three items. The scale range was from 0 (youth sets all limits) to 6 (Parent sets all limits), with higher scores indicating greater parental role in limit-setting.

Variable Name: FP_YHLIMITS

Age of Youth: 12–13 years

Frequencies

Youth Report of Limit-setting Index (higher indicates more parental limit-setting)

FP_YHLIMITS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	53	1.5	53	1.5
1	317	9.0	370	10.5
2	809	23.0	1179	33.5
3	741	21.1	1920	54.6
4	777	22.1	2697	76.7
5	432	12.3	3129	89.0
6	387	11.0	3516	100.0

The frequency data indicate that some joint limit-setting is most frequent, but that some parents set all or most limits, while in other cases the youth sets all or nearly all of their own limits on these issues.

Psychometric Assessment:

Data Quality

A score on the Youth Limits-Setting Index was obtained only for respondents who answered all three items. Respondents who answered fewer than three items were coded as missing on the Youth Limits-Setting Index. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Who sets the limits	3516	11	3.34	1.52

Internal Consistency/Reliability

Not applicable. (This is an index rather than a scale, that is, it is not assumed that limit-setting on one activity should necessarily be correlated (i.e., internally consistent) with the setting a limit for another activity).

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity for youth report of limit-setting. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of construct and predictive validity, a three-level variable for youth report of limit-setting was created: youth sets most/all (summary score greater or

equal to 5), jointly set, and parents sets all. Data shown below are for the two extreme categories: youth sets most/all vs. parents sets all.

Other evidence suggestive of validity includes whether limit-setting differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Limit-setting for the top and bottom levels of Youth report of Limit-setting.

Youth who reported that parents set all three limits had parents who also reported a greater role in limit-setting. Overall, though, parents reported setting more limits for their youth than the number of limits that the youth reported that their parents set.

Means, Standard errors, and t-values are reported in the following table.

Mean Score of Parent Report of Limit-setting by Youth Report of Limit-setting (Youth sets all vs. Parent sets all)

	Youth report–Youth Sets Most/All Limits	Youth report–Parent Sets All Limits	t-value
Parent Report of Limit-setting (range: 0–6)	3.86 (.07)	4.91 (.07)	10.27***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Youth report of Limit-setting.

Youth who reported that their parents set all of the limits also reported higher mean monitoring scores for both their residential mothers and residential fathers.

Means, standard errors, and t-values are reported in the tables below.

Mean Scores for Youth Report of Parental Monitoring by Youth Report of Limit-setting (Youth sets all vs. Parent sets all)

	Youth report–Youth Sets Most/All Limits	Youth report–Parent Sets All Limits	t-value
Youth Report of Monitoring by Residential Mother (range: 0–16)	9.47 (.17)	10.89 (.17)	5.86***
Youth Report of Monitoring by Residential Father (range: 0–16)	7.17 (.25)	8.71 (.25)	4.36***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Youth who reported that their parents set all of the limits reported fewer instances of substance use, delinquency, and behavior problems.

Mean Scores for Youth Behavior Problems by Youth Report of Limit-setting (Youth sets all vs. Parent sets all)

	Youth report–Youth Sets Most/All Limits	Youth report–Parent Sets All Limits	t-value
Youth Report of Substance Use (range: 0–3)	1.04 (.05)	0.30 (.04)	-11.46***
Youth Report of Delinquency (range: 0–10)	1.60 (.07)	0.59 (.06)	-9.64***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.33 (.12)	1.61 (.13)	-4.13***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.33 (.12)	1.98 (.10)	-2.22*
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.57 (.11)	1.30 (.13)	-1.67+
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.77 (.13)	2.05 (.11)	-1.60

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Limit-setting for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Means, standard errors, and t-values are reported in the table below.

There was no evidence that youth report of limit-setting differed by poverty level.

Mean Scores for Youth Report of Limit-setting by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Youth Report of Limit-setting (range: 0–6)	3.39 (.06)	3.28 (.05)	-1.40

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Eccles, J.S., Buchanan, C.M. Flanagan, C., & Fuligini, A. (1991). Control Versus Autonomy During Early Adolescence. Journal of Social Issues, 47, 53-68.

Erford, T. (1995). Parental Autonomy – Enhancement and Development of Self-Efficacy. Psychological Reports, 77, 1347-1353.

Family Process Measures

Control/Autonomy Limit-Breaking–Youth Report

Description & Relevance:

These items parallel items about limit compliance asked of parents, and serve as indicators of the degree to which youth are granted autonomy and/or parents have a role in setting limits in three areas: friends, curfew, and TV watching. The use of specific parallel items for parents and adolescents was intentional, since discrepancies across reporters may indicate a lack of clarity in who actually sets limits (Eccles, Buchanan, Flanagan, Fuligini, 1991; Erford, 1995).

Source of Items:

These items were developed by researchers at Child Trends and the NLSY 1997 design team to tap into the construct of limit-breaking.

Parallel items were asked of the youth.

Items and Response Categories

1) *In the past 30 days, how many times have you broken the limits about how late you can stay out at night?*
2) *In the past 30 days, how many times have you broken the limits about who you can hang out with?*
3) *In the past 30 days, how many times have you broken the limits about what kinds of tv shows and movies you watch?*

Three response categories were created for the break limits scale:

0 Did not break the limits
1 Broke the limits
9 No limits–Youth sets all 3 limits

Index Creation

Youths received a score of 1 on this variable if they reported having broken any of these three limits. They received a zero if they said they did not break any of the limits.

Youth reporting that they set all three limits did not respond to these three items and were, thus, coded as missing (9) in subsequent analyses (n=60).

Variable Name: FP_YHBROKED

Age of Youth: 12–13 years

Frequencies

Youth Report of Limit-breaking

FP_YHBROKED	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1952	56.4	1952	56.4
1	1509	43.6	3461	100.0

Psychometric Assessment:

Data Quality

A score for limit-breaking was obtained for respondents who answered any of the three items. Respondents were scored as missing if they were missing on all three items. However, little missing data occurred.

Measure	N	N missing	Mean	SD
Broke any of the three limits in last 30 days	3461	130	0.44	0.50

NOTE: 60 of these missing cases were the subjects who set their own limits, and thus were not asked to answer these items.

Internal Consistency/Reliability

Not applicable. (This is an index rather than a scale. That is, it is not assumed that limit-breaking on one activity should be correlated (i.e., internally consistent) with breaking the limit on another activity.)

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity of youth report of having broken any of these limits. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of construct and predictive validity, youths that broke 1 or more limits were compared to youth that did break any limits. Data shown below are for these two levels.

Other evidence suggestive of validity includes whether breaking the limits differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

The χ^2 for youth and parent report of whether youth had broken any limits was significant (χ^2 (1)=165.15, p<.001), suggesting overall convergence across reporter.

Nonetheless, youth reported breaking more limits than the parent reported. For example, among parent reporting that the youth did not break any of these three the limits, 36% of youth said they did break at least one of these three limits.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Youth report of limit-breaking.

Youth who reported not breaking any of the three limits reported that their parents (residential mother and residential father) were higher on monitoring.

Means, standard errors, and t-values are reported in the following tables.

Mean Scores for Youth report of Parental Monitoring by Youth Report of Limit-breaking (None vs. 1 or more Limit Broken)

	Youth report– Did not Break any Limits	Youth report– Broke 1 or more of the Limits	t-value
Youth Report of Monitoring for Residential Mother (range: 0–16)	10.79 (.07)	10.15 (.08)	5.77***
Youth Report of Monitoring for Residential Father (range: 0–16)	8.82 (.10)	7.94 (.12)	5.56***

Youth who reported not breaking any of these three limits also reported fewer instances of substance use, delinquency, and behavior problems. Youth who reported not breaking any of these three limits also had parents that reported fewer behavior problems for the youth.

Mean Scores for Youth Behavior Problems by Youth Report of Limits Broken (None vs. 1 or more Limit Broken)

	Youth report– Did not Break any Limits	Youth report– Broke 1 or more of the Limits	t-value
Youth Report of Substance Use (range: 0–3)	0.41 (.02)	0.80 (.02)	-12.91***
Youth Report of Delinquency (range: 0–10)	0.67 (.03)	1.36 (.03)	-14.35***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	1.73 (.05)	2.42 (.06)	-9.04***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	1.86 (.05)	2.34 (.05)	-6.60***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.14 (.05)	1.54 (.06)	-5.37***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.57 (.06)	1.96 (.06)	-4.85***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

The χ^2 for youth report of having broken any of these three limits and poverty level was non-significant (χ^2 (1)=3.03, p=ns), suggesting that the likelihood of breaking any of these three limits in the last 30 days did not differ by poverty level.

References:

Eccles, J.S., Buchanan, C.M., Flanagan, C., & Fuligini, A. (1991). Control versus autonomy during early adolescence. Journal of Social Issues, 47, 53-68.

Erford, T. (1995). Parental autonomy: Enhancement and development of self-efficacy. Psychological Reports, 77, 1347-1353.

Family Process Measures

Control/Autonomy–Who Handles When Limit Is Broken–Youth Report

Source of Items

This item was developed by researchers at Child Trends.

Items and Response Categories:

1. *If your parent or parents found out that you broke a limit, who would most likely handle it?*

1 MOM WHO LIVES HERE
2 DAD WHO LIVES HERE
3 MOM AND DAD TOGETHER
4 MOM WHO LIVES SOMEWHERE ELSE
5 DAD WHO LIVES SOMEWHERE ELSE
6 SOMEONE ELSE
7 NO ONE

Scale Creation: Not applicable

Variable Name: YSAQ-246

Age of Youth: 12–13 years

Frequencies:

WHO HANDLE PROBS WHEN BRK LIM? 1997

R0344700	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	1372	39.5	1372	39.5
2	349	10.1	1721	49.6
3	1635	47.1	3356	96.7
4	13	0.4	3369	97.1
5	19	0.5	3388	97.6
6	42	1.2	3430	98.8
7	41	1.2	3471	100.0

Data Quality

Measure	N	N missing
R0344700	3471	3

Family Process Measures

Control/Autonomy–Consequences of Limit-Breaking–Youth Report

Source of Items

These items were developed by researchers at Child Trends.

Items and Response Categories:

1. *Which of the following would your parent or parents do if they found out you had come home an hour late for no good reason?*

   1 DISCUSS IT CALMLY WITH YOU
   2 IGNORE IT, PRETEND THAT IT DIDN'T HAPPEN OR LET YOU GET AWAY WITH IT
   3 SULK, POUT, OR GIVE YOU THE SILENT TREATMENT
   4 TAKE AWAY A PRIVILEGE, GROUND YOU, OR GIVE YOU A CHORE
   5 MAKE THREATS THAT WON'T BE KEPT
   6 YELL, SHOUT, OR SCREAM AT YOU
   7 USE PHYSICAL PUNISHMENT

2. *Which of the following would your parent or parents do if they found out you had watched something you weren't supposed to watch?*

   1 DISCUSS IT CALMLY WITH YOU
   2 IGNORE IT, PRETEND THAT IT DIDN'T HAPPEN OR LET YOU GET AWAY WITH IT
   3 SULK, POUT, OR GIVE YOU THE SILENT TREATMENT
   4 TAKE AWAY A PRIVILEGE, GROUND YOU, OR GIVE YOU A CHORE
   5 MAKE THREATS THAT WON'T BE KEPT
   6 YELL, SHOUT, OR SCREAM AT YOU
   7 USE PHYSICAL PUNISHMENT

3. *Which of the following would your parent or parents do if they found out you had hung out with someone you weren't supposed to be with?*

   1 DISCUSS IT CALMLY WITH YOU
   2 IGNORE IT, PRETEND THAT IT DIDN'T HAPPEN OR LET YOU GET AWAY WITH IT
   3 SULK, POUT, OR GIVE YOU THE SILENT TREATMENT
   4 TAKE AWAY A PRIVILEGE, GROUND YOU, OR GIVE YOU A CHORE
   5 MAKE THREATS THAT WON'T BE KEPT
   6 YELL, SHOUT, OR SCREAM AT YOU
   7 USE PHYSICAL PUNISHMENT

Scale Creation: Not applicable

Variable Names:

What Would Parent(s) Do if R Breaks Curfew: YSAQ-248

What Would Parent(s) Do if R Breaks TV or Movie Limits: YSAQ-250

What Would Parent(s) Do if R Breaks Limits Who Hangs With: YSAQ-252

Age of Youth: 12–13 years

Frequencies:

WHAT PAR DO BRK CURFEW LIM? 1997

R0344900	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	1430	42.0	1430	42.0
2	80	2.4	1510	44.4
3	23	0.7	1533	45.0
4	1506	44.2	3039	89.3
5	72	2.1	3111	91.4
6	228	6.7	3339	98.1
7	65	1.9	3404	100.0

WHAT PAR DO BRK TV/MOVIE LIM? 1997

R0345100	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	1205	53.9	1205	53.9
2	86	3.8	1291	57.7
3	14	0.6	1305	58.4
4	730	32.6	2035	91.0
5	47	2.1	2082	93.1
6	108	4.8	2190	97.9
7	46	2.1	2236	100.0

WHAT PAR DO BRK LIM WHO WITH? 1997

R0345300	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	973	53.7	973	53.7
2	30	1.7	1003	55.3
3	18	1.0	1021	56.3
4	580	32.0	1601	88.3
5	38	2.1	1639	90.4
6	113	6.2	1752	96.6
7	61	3.4	1813	100.0

Data Quality

Measure	N	N missing
R0344900	3404	12
R0345100	2236	11
R0345300	1813	10

Family Process Measures

Control/Autonomy Limit-Setting–Parent Report

Description & Relevance:

These items parallel items about limit-setting asked of youth and serve as indicators of the degree to which youth are granted autonomy and/or parents have a role in setting limits in three areas: friends, curfew, and TV watching. The use of specific parallel items for parents and adolescents was intentional, since discrepancies across reporters may indicate a lack of clarity in who actually sets limits (Eccles, Buchanan, Flanagan, Fuligini, 1991; Erford, 1995).

Source of Items:

These items were modified from NLSY '79. The respondents of the NLSY '79 provided information about who made the rules regarding their behavior.

Parallel items were asked of the youth.

Items and Response Categories

Please tell me whether you make rules about these things, or does [this youth] decide for [himself/herself]?

1. *How late [this youth] can stay out at night.*
2. *What kinds of TV shows and movies [this youth] can watch.*
3. *Who [this youth] can hang out with.*

The scale was measured on a 3-point scale:

1	2	3
Parent makes rules	Child decides for self	Child and parent decide jointly

Index Creation

The Parental Limits-Setting Index was created first by recoding response categories to: youth sets limit = 0, limits set jointly by both parent and youth = 1, and parents set limit = 2. The response categories where then summed for the three items. The scale range was from 0 (youth sets all limits) to 6 (parent sets all limits), with higher scores indicating greater parental role in limit-setting.

Variable Name: FP_PHLIMITS

Age of Youth: 12–13 years

Frequencies

Parent Report of Limit-setting

FP_PHLIMITS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	15	0.5	15	0.5
1	42	1.3	57	1.8
2	241	7.7	298	9.5
3	485	15.4	783	24.9
4	970	30.8	1753	55.7
5	650	20.6	2403	76.3
6	747	23.7	3150	100.0

Psychometric Assessment:

Data Quality

Very little missing data occurred. A score on the Parental Limits-Setting Index was obtained only for respondents who answered all three items. Respondents who answered fewer than three items were coded as missing on the Parental Limits-Setting Index.

Measure	N	N missing	Mean	SD
Who sets the limits	3305	7	4.28	1.33

Internal Consistency/Reliability

Not applicable. (We are not assuming that limit-setting on one activity should be correlated (i.e., internally consistent) with the setting a limit for another activity.)

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity of parent report of limit-setting. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of construct and predictive validity, a three-level variable for parent report of limit-setting was created: youth sets most/all, jointly set, parent sets all. Data shown below are for the two extreme categories: youth sets most/all vs. parents sets all.

Other evidence suggestive of validity includes whether limit-setting differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Limit-Setting for the top and bottom levels of Parent report of Limit-Setting.

Parents who reported setting all three limits had youth who reported a greater parental role in limit-setting.

Means, standard errors, and t-values are reported in this table.

Mean Score for Youth Report of Limit-setting by Parent Report of Limit-setting (Youth sets all vs. Parent sets all)

	Parent report–Youth Sets Most/All Limits	Parent report–Parent Sets All Limits	t-value
Youth Report of Limit-setting (range: 0–6)	2.15 (.02)	3.83 (.06)	7.87***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Parent report of Limit-setting.

There was no evidence to suggest that youth report of monitoring for residential mother or residential father differed by parental limit-setting.

Means, standard errors, and t-values are reported in the table.

Mean Scores for Youth Report of Monitoring by Parent Report of Limit-setting (Youth sets all vs. Parent sets all)

	Parent report–Youth Sets Most/All Limits	Parent report–Parent Sets All Limits	t-value
Youth Report of Monitoring for Residential Mother (range: 0–16)	9.75 (.46)	10.35 (.12)	1.27
Youth Report of Monitoring for Residential Father (range: 0–16)	7.72 (.74)	8.35 (.17)	0.83

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Parents who report setting all three limits have youth who reported fewer instances of substance use and delinquency.

Mean Scores for Youth Behavior Problems by Parent Report of Limit-setting (Youth sets all vs. Parent sets all)

	Youth Sets Most/All Limits	Parent Sets All Limits	t-value
Youth Report of Substance Use (range: 0–3)	0.88 (.12)	0.55 (.03)	-2.63**
Youth Report of Delinquency (range: 0–10)	1.49 (.19)	0.97 (.05)	-2.59**
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.54 (.28)	2.11 (.08)	-1.43
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.55 (.32)	2.19 (.08)	-1.10
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.68 (.25)	1.31 (.07)	-1.40
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.05 (.35)	1.75 (.08)	-0.85

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Limit-setting for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Parents in families with incomes greater than 200% of the poverty line had lower limit-setting scores, on average, suggesting a somewhat smaller role in setting limits than parents in families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Parent Report of Limit-setting by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Parent Report of Limit-setting (range: 0–6)	4.48 (.05)	4.20 (.04)	-4.18***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

References:

Eccles, J.S., Buchanan, C.M. Flanagan, C., & Fuligini, A. (1991). Control versus autonomy during early adolescence. Journal of Social Issues, 47, 53-68.

Erford, T. (1995). Parental autonomy – Enhancement and development of self-efficacy. Psychological Reports, 77, 1347-1353.

Family Process Measures

Control/Autonomy Limit-Breaking–Parent Report

Description & Relevance:

These items parallel items about limit compliance asked of youth, and serve as indicators of the degree to which youth are granted autonomy and/or parents have a role in setting limits in three areas: friends, curfew, and TV watching. The use of specific parallel items for parents and adolescents was intentional, since discrepancies across reporters may indicate a lack of clarity in who actually sets limits (Eccles, Buchanan, Flanagan, Fuligini, 1991; Erford, 1995).

Source of Items

These items were developed by researchers at Child Trends to tap into the construct of limit-breaking.

Parallel items were asked of the youth.

Items and Response Categories

In the past 30 days, how many times do you think [this youth] has broken the rules about...

1. *What kinds of TV shows and movies [he/she] can watch.*
2. *How late [he/she] can stay out at night.*
3. *Who [this youth] can hang out with.*

Three response categories were created for the break limits scale:

0	Did not break the limits
1	Broke the limits
9	No limits–Youth sets all 3 limits

Index Creation

Youths received a score of 1 on this variable if their parent reported that the youth had broken any of these three limits. They received a zero if their parents said they did not break any of the limits.

Parent reporting that the youth sets all three limits did not respond to these three items and were, thus, coded as missing (9) in subsequent analyses (n=15).

Variable Name: FP_PHBROKED

Age of Youth: 12–13 years

Frequencies

Parent Report of Limit-breaking

FP_PHBROKED	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	2122	67.9	2122	67.9
1	1004	32.1	3126	100.0

Psychometric Assessment:

Data Quality

Little missing data occurred. A score for limit-breaking was obtained for respondents who answered any of the three items. Respondents were scored as missing if they were missing on all three items.

Measure	N	N missing	Mean	SD
Broke any of the three limits in last 30 days	3275	141	0.32	0.47

NOTE: 15 of these missing cases were the subjects who set their own limits, and thus were not asked to answer these items

Internal Consistency/Reliability

Not applicable. (This is an index rather than a scale. That is, it is not assumed that limit-breaking on one activity should be correlated (i.e., internally consistent) with breaking the limit on another activity.)

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity of parent report of having broken any of these limits. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of construct and predictive validity, parent report of youths that broke a limit were compared to parent report of youth that did break the limits. Data shown below are for these two levels.

Other evidence suggestive of validity includes whether breaking limits differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

The χ^2 for youth and parent report of whether youth breaking any limits was significant (χ^2 (1)=165.15, p<.001), suggesting overall convergence across reporter. Nonetheless, youth reported breaking more limits than the parent reported. For example, among parent reporting that the youth did not break any of these limits, 36% of youth said they did break at least one of these limits.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Parent report of Limit-breaking.

Parents who reported that the youth did not break any of these limits were rated by the youth as being higher on monitoring.

Means, standard errors, and t-values are reported in these tables.

Mean Score for Youth Report of Parental Monitoring by Parent Report of Limit-breaking (None vs. 1 or more Limit Broken)

	Parent report– Youth Did not Break any Limits	Parent report– Youth Broke 1 or more of the Limits	t-value
Youth Report of Monitoring for Residential Mother (range: 0–16)	10.66 (.07)	10.16 (.10)	4.01***
Youth Report of Monitoring for Residential Father (range: 0–16)	8.58 (.10)	8.05 (.15)	2.90**

Parents who reported that the youth did not break the limits have youth that reported fewer instances of substance use, delinquency, and behavior problems. Parents also reported fewer youth behavior problems when they reported that the youth did not break the limits.

Mean Score for Youth Behavior Problems by Parent Report of Limits Broken (None vs. 1 or more Limit Broken)

	Parent report– Youth Did not Break any Limits	Parent report– Youth Broke 1 or more of the Limits	t-value
Youth Report of Substance Use (range: 0–3)	0.50 (.02)	0.79 (.03)	-8.60***
Youth Report of Delinquency (range: 0–10)	0.82 (.03)	1.38 (.04)	-10.12***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	1.87 (.05)	2.38 (.08)	-5.54***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	1.99 (.05)	2.28 (.06)	-3.71***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.05 (.04)	2.02 (.07)	-12.37***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.46 (.05)	2.31 (.06)	-10.35***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

The χ^2 for parent report of having broken any of these limits and poverty level was non-significant (χ^2 (1) = 2.32, p=ns), suggesting that the likelihood of breaking any of these three limits in the last 30 days did not differ by poverty level.

References:

Eccles, J.S., Buchanan, C.M. Flanagan, C., & Fuligini, A. (1991). Control versus autonomy during early adolescence. Journal of Social Issues, 47, 53-68.

Erford, T. (1995). Parental autonomy: Enhancement and development of self-efficacy. Psychological Reports, 77, 1347-1353.

Family Process Measures

Control/Autonomy–Who Handles When Limit Is Broken–Parent Report

Source of Items

This item was developed by researchers at Child Trends.

Items and Response Categories:

1. *If you found out that [this youth] broke a rule, who would most likely talk to [this youth] about it?*
   - *1 Responding parent*
   - *2 Other parent in this household*
   - *3 Both parents in this household (together)*
   - *4 Mom who lives somewhere else*
   - *5 Dad who lives somewhere else*
   - *6 Someone else (SPECIFY)*
   - *7 No one*

Scale Creation: Not applicable

Variable Name: PC12-013

Age of Youth: 12–13 years

Frequencies:

WHO HANDLE PROBS R BRK LIM? 1997

R0690300	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	1981	60.2	1981	60.2
2	152	4.6	2133	64.8
3	1122	34.1	3255	98.9
4	9	0.3	3264	99.2
5	8	0.2	3272	99.5
6	13	0.4	3285	99.8
7	5	0.2	3290	100.0

Data Quality

Measure	N	N missing
R0690300	3290	5

Family Process Measures

Parenting Styles–Youth Report

Description & Relevance:

Based on an extensive review of the parenting literature, Maccoby and Martin (1983) proposed a four-style typology that can be created by crossing two global dimensions of parenting: "demandingness" (e.g., strictness) and "responsiveness" (e.g., warmth, support). A*uthoritative* parents are high on both demandingness and responsiveness; *authoritarian* parents are high on demandingness and low on responsiveness; *indulgent* parents are low on demandingness and high on responsiveness; and *indifferent-uninvolved* parents are low on both demandingness and responsiveness (Maccoby & Martin, 1983).

Baumrind (1991) and others (e.g., Michael & Sameroff, 1995) have argued that the utility of parenting styles lies not in the additive effects of these two dimensions separately but, rather, in their interactive effects. That is, "demanding" behaviors or attitudes have a *different meaning* depending on whether they co-occur with greater or less responsiveness; likewise, responsive behaviors or attitudes have a *different meaning* depending on whether they co-occur with more or less demandingness. These researchers recommend testing the statistical interaction of demandingness and responsiveness to ascertain whether "the whole is greater than the sum of its parts" (Michael & Sameroff, 1995)–that is, whether one is studying parenting *style* and not simply the additive effects of demandingness and responsiveness.

However, this statistical interaction typically tests only whether authoritative parents (who are both demanding and responsive) are different from the other three types of parents, *on average*. By making authoritative parents the reference group, this approach not only implicitly assumes authoritative parenting is (should be?) the norm, it also precludes reporting on statistically significant differences for other pairs or sets of parenting types.

Thus, below we report on differences in means on family process and adolescent outcomes for any pair or sets of parenting types, as long as the main effect for the categorical parenting style variable was statistically significant.

Source of Items

Whereas countless studies have employed detailed methods and multiple-item scales to classify parents into these four groups, this is less feasible in larger, national studies of families. Consequently, researchers at Child Trends developed two items—one tapping parental strictness/permissiveness (i.e., demandingness), and the other tapping parental supportiveness (i.e., responsiveness)—in an effort to create a very brief measure of youth-reported parenting styles in this cohort. Inclusion of these two items is a methodological endeavor. If the measure proves to

be valid, it has the potential of greatly reducing the number of global parenting items needed in future rounds and studies.

Items and Response Categories:

Residential parents:

1. *When you think about how s/he acts towards you, in general, would you say that s/he is very supportive, somewhat supportive, or not very supportive?*
2. *In general, would you say that s/he is permissive or strict about making sure you did what you were supposed to do?*

Non-Residential parents:

1. *When you were growing up, in general, was s/he very supportive, somewhat supportive, or not very supportive?*
2. *Was s/he permissive or strict about making you do what you were supposed to do?*

The supportiveness responses were measured on a 3-point scale:

Very Supportive	Somewhat Supportive	Not very Supportive
1	2	3

The strictness responses were measured on a 2-point scale:

Permissive	Strict
1	2

Scale Creation

Parenting Styles were created for each of the four possible parental figures:

9) Residential mother
10) Residential father
11) Non-residential biological mother
12) Non-residential biological father

Responses of “not very supportive” or “somewhat supportive” on the supportiveness item were recoded 0 and are considered “non-responsive,” and responses of “very supportive” were recoded 1 and are considered “responsive.” Responses of “strict” on the permissive/strictness item were recoded 1 and are considered “demanding,” and responses of “permissive” were recoded 0 and are considered “non-demanding.”

The two, two-level, variables were then combined to produce a Parenting Style variable (for each parent) with four categories: Uninvolved (permissive & not very or somewhat supportive), Authoritarian (strict & not very or somewhat supportive), Permissive (permissive & very supportive), and Authoritative (strict & very supportive).

Variable Names:

Residential Mother's supportiveness–	YSAQ-032
Residential Mother's strictness–	YSAQ-033
Residential Mother's parenting style–	FP_YMPSTYL
Residential Father's supportiveness–	YSAQ-053
Residential Father's strictness–	YSAQ-054
Residential Father's parenting style–	FP_YFPSTYL
Non-residential Mother's supportiveness–	YSAQ-085 (biological) YSAQ-128 (adoptive)
Non-residential Mother's strictness–	YSAQ-086 (biological) YSAQ-129 (adoptive)
Non-residential Mother's parenting style–	FP_YNRMPSTYL
Non-residential Father's supportiveness–	YSAQ-174 (biological) YSAQ-219 (adoptive)
Non-residential Father's strictness–	YSAQ-175 (biological) YSAQ-220 (adoptive)
Non-residential Father's parenting style–	FP_YNRFPSTYL

Age of Youth: 12–16 years

Frequencies:

Residential Mother:

MOM VERY SUPRTV, VS SOMWHAT OR NONE

YSAQ-032	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1969	22.8	1969	22.8
1	6675	77.2	8644	100.0

MOM STRICT VS PERMISS

YSAQ-033	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	3907	45.3	3907	45.3
1	4710	54.7	8617	100.0

PARENTING STYLE FOR R Mother

FP_YMPSTYL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1:Uninvolved	894	10.4	894	10.4
2:Permissive	3013	35.0	3907	45.3
3:Authoritarian	1069	12.4	4976	57.7
4:Authoritative	3641	42.3	8617	100.0

Residential Father:

DAD VERY SUPRTV, VS SOMWHAT OR NONE

YSAQ-053	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	2084	32.3	2084	32.3
1	4374	67.7	6458	100.0

DAD STRICT VS PERMISS

YSAQ-054	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	2662	41.3	2662	41.3
1	3785	58.7	6447	100.0

PARENTING STYLE FOR R FATHER

FP_YFPSTYL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1:Uninvolved	819	12.7	819	12.7
2:Permissive	1841	28.6	2660	41.3
3:Authoritarian	1262	19.6	3922	60.9
4:Authoritative	2521	39.1	6443	100.0

Non-residential Mother:

NR MOM VERY SUPRTV, VS SOME, NONE

YSAQ-085, YSAQ-128	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	190	39.9	190	39.9
1	286	60.1	476	100.0

NR MOM STRICT VS PERMISS

YSAQ-086, YSAQ-129	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	270	57.0	270	57.0
1	204	43.0	474	100.0

PARENTING STYLE FOR NR MOTHER

FP_YNRMPSTYL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1:Uninvolved	132	27.8	132	27.8
2:Permissive	138	29.1	270	57.0
3:Authoritarian	57	12.0	327	69.0
4:Authoritative	147	31.0	474	100.0

Non-residential Father:

NR DAD VERY SUPRTV, VS SOME, NONE

YSAQ-174, YSAQ-219	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	712	58.6	712	58.6
1	503	41.4	1215	100.0

NR DAD STRICT VS PERMISS

YSAQ-175, YSAQ-220	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	659	54.8	659	54.8
1	543	45.2	1202	100.0

PARENTING STYLE FOR NR FATHER

FP_YNRFPSTYL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1:Uninvolved	413	34.4	413	34.4
2:Permissive	246	20.5	659	55.0
3:Authoritarian	286	23.9	945	78.8
4:Authoritative	254	21.2	1199	100.0

Psychometric Assessment:

Data Quality

Parenting Styles were obtained only for respondents who answered both the “permissive/strictness” and “supportiveness” items. Respondents who were missing one or both of these items were coded as missing. However, very little missing data occurred.

Measure	N	N missing	Proportion	SD
Residential mother				
Supportiveness	8644	3	0.77	0.42
Strictness	8617	30	0.55	0.50
Parenting Style	8617	30	NA	NA
Residential father				
Supportiveness	6458	7	0.68	0.47
Strictness	6447	18	0.59	0.49
Parenting Style	6443	22	NA	NA
Non-residential mother				
Supportiveness	476	0	0.60	0.49
Strictness	474	2	0.43	0.49
Parenting Style	474	2	NA	NA
Non-residential father				
Supportiveness	1215	10	0.41	0.49
Strictness	1202	23	0.45	0.50
Parenting Style	1199	26	NA	NA

Internal Consistency/Reliability

Not applicable. (This is a categorical variable, not an interval-level scale comprised of items presumed to be internally consistent.)

Validity

We examined predictive validity and other evidence suggestive of validity for the strictness/permissiveness item, the supportiveness item, and the Parenting Styles variable (for each parent). The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables and/or youth behavior as expected, based on theory or previous research. For purposes of predictive validity, means scores on family process and youth behavioral outcomes were compared across the four parenting style groups.

Other evidence suggestive of validity includes whether parenting styles differ significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

Youth identifying a parent as "very supportive" on the single item, had higher scores on the Parent-Youth Relationship Scale, compared to youth who identified this parent as "not very" or "somewhat" supportive.

No other measures of strictness/permissiveness were collected in this cohort, therefore construct validity of this measure cannot be assessed.

No other measures of parenting styles were collected in this cohort, therefore construct validity of this measure cannot be assessed.

Residential Mother:

Mean Score of Parent-Youth Relationship by 1-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	20.69 (.11)	26.58 (.06)	-45.60***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Residential Father:

Mean Score of Parent-Youth Relationship by 1-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	19.64 (.12)	26.88 (.09)	-48.46***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Mother:

Mean Score of Parent-Youth Relationship by 1-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	18.15 (.52)	26.01 (.44)	-11.06***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Non-Residential Father:

Mean Score of Parent-Youth Relationship by 1-Item Parental Support

	Not Very/Somewhat Supportive	Very Supportive	t-value
Parent-Youth Relationship (range: 0–32)	18.47 (.27)	25.85 (.31)	-17.99***

p-levels are ≤.10=+; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

One-way ANOVAs were conducted (one for each parent figure), with youth and parent reports of limit-setting, limit-breaking, youth reports of family routines and parental monitoring, and youth reports of problem behaviors as dependent variables, the 4-level parenting style variable as an independent variable, and youth age (in years) and gender as covariates. When a main effect for parenting style was found, all significant post-hoc comparisons are reported. (If a main effect for parenting style was not found, no post-hoc comparisons are reported, even if some were statistically significant.)

Means, standard errors, and t-values are reported in the following tables.

Residential Mother:

Mean Scores on Family Process and Adolescent Outcome Measures, by Youth Report of Residential Mother's Parenting Style

	Uninvolved	Permissive	Authoritarian	Authoritative	Group Comparisons[1]
Youth Report of Limit-setting	2.78 (.08)	3.13 (.05)	3.32 (.07)	3.65 (.04)	U<P<An<Av
Youth Report of Limit-breaking	0.51 (.03)	0.41 (.02)	0.53 (.02)	0.41 (.01)	P,Av < U,An
Parent Report of Limit-setting	4.20 (.07)	4.15 (.04)	4.45 (.06)	4.41 (.03)	U,P < An,Av
Parent Report of Limit-breaking	0.40 (.03)	0.29 (.01)	0.36 (.02)	0.31 (.01)	U > P, Av P < U, An
Youth Report of Routines	12.45 (.22)	15.10 (.13)	13.90 (.20)	16.11 (.11)	U<An<P<Av
Youth Report of Monitoring	7.89 (.12)	10.79 (.07)	8.23 (.11)	11.15 (.06)	U<An<P<Av
Youth report of Substance Use	1.09 (.04)	.73 (.02)	.94 (.04)	0.60 (.02)	U>An>P>Av
Youth report of delinquency	1.72 (.06)	1.01 (.04)	1.64 (.06)	.89 (.03)	P, Av < U, An
Behavioral and Emotional Problems Scale for Girls (Youth report)	3.05 (.09)	1.86 (.05)	2.91 (.08)	1.80 (.05)	P,Av < U,An
Behavioral and Emotional Problems Scale for Boys (Youth report)	2.72 (.09)	1.93 (.05)	2.67 (.08)	1.96 (.04)	P,Av < U,An
Behavioral and Emotional Problems Scale for Girls (Parent report)	1.78 (.11)	1.16 (.06)	1.67 (.09)	1.17 (.05)	P,Av < U,An
Behavioral and Emotional Problems Scale for Boys (Parent report)	2.12 (.13)	1.64 (.07)	2.27 (.12)	1.63 (.06)	P,Av < U,An

[1] U= Uninvolved, P= Permissive; An = Authoritarian; Av = Authoritative

Residential Father:

Mean Scores on Family Process and Adolescent Outcome Measures, by Youth Report of Residential Father's Parenting Style

	Uninvolved	Permissive	Authoritarian	Authoritative	Group Comparisons[3]
Youth Report of Limit-breaking	0.51 (.03)	0.38 (.02)	0.52 (.02)	0.41 (.01)	P,Av < U,An
Youth Report of Limit-setting	3.10 (.09)	3.16 (.06)	3.25 (.06)	3.67 (.04)	Av>U, P, An
Parent Report of Limit-breaking	0.34 (.03)	0.29 (.02)	0.33 (.02)	0.29 (.01)	n.s.
Parent Report of Limit-setting	4.27 (.08)	4.24 (.05)	4.33 (.06)	4.37 (.04)	n.s.
Youth Report of Routines	13.80 (.24)	15.71 (.16)	13.70 (.18)	16.38 (.13)	P,Av < U,An Av > P
Youth Report of Monitoring	5.28 (.16)	9.14 (.11)	5.81 (.12)	9.62 (.09)	U< An< P < Av
Youth report of Substance Use	.92 (.04)	0.66 (.03)	.96 (.03)	0.55 (.02)	P,Av < U,An Av < P
Youth report of delinquency	1.46 (.07)	.92 (.05)	1.58 (.05)	.84 (.04)	P,Av < U,An
Behavioral and Emotional Problems Scale for Girls (Youth report)	2.54 (.10)	1.77 (.07)	2.76 (.07)	1.68 (.06)	P,Av < U,An
Behavioral and Emotional Problems Scale for Boys (Youth report)	2.53 (.09)	1.85 (.06)	2.76 (.07)	1.80 (.05)	P,Av < U,An U > An
Behavioral and Emotional Problems Scale for Girls (Parent report)	1.55 (.12)	1.01 (.07)	1.49 (.08)	0.97 (.06)	P,Av < U,An
Behavioral and Emotional Problems Scale for Boys (Parent report)	1.99 (.14)	1.57 (.09)	2.06 (.11)	1.49 (.07)	P,Av < U,An

Non-Residential Mother:

Mean Scores on Family Process and Adolescent Outcome Measures, by Youth Report of Non-Residential Mother's Parenting Style

	Uninvolved	Permissive	Authoritarian	Authoritative	Group Comparisons[2]
Youth Report of Limit-setting	3.31 (.25)	2.80 (.24)	3.35 (.31)	3.37 (.22)	n.s.
Youth Report of Limit-breaking	.60 (.08)	.50 (.08)	.45 (.10)	.48 (.07)	n.s.
Parent Report of Limit-setting	4.30 (.25)	3.94 (.23)	4.86 (.29)	4.72 (.20)	P < An, Av
Parent Report of Limit-breaking	.36 (.08)	.45 (.08)	.38 (.10)	.37 (.07)	n.s.
Youth Report of Routines	14.71 (.71)	14.41 (.76)	14.53 (1.03)	15.09 (.70)	n.s.
Youth Report of Monitoring	4.45 (.48)	8.36 (.48)	4.96 (.68)	8.48 (.46)	P,Av < U,An
Youth report of Substance Use	1.03 (.13)	1.23 (.13)	1.33 (.19)	.97 (.13)	n.s.
Youth report of delinquency	1.98 (.25)	1.93 (.25)	1.84 (.36)	1.92 (.24)	n.s.
Behavioral and Emotional Problems Scale for Girls (Youth report)	2.89 (.26)	3.04 (.29)	3.22 (.40)	1.98 (.27)	Av < U, P,An
Behavioral and Emotional Problems Scale for Boys (Youth report)	2.11 (.27)	2.24 (.26)	1.84 (.37)	2.45 (.25)	n.s.
Behavioral and Emotional Problems Scale for Girls (Parent report)	1.95 (.43)	1.16 (.44)	2.88 (.51)	1.60 (.32)	n.s.
Behavioral and Emotional Problems Scale for Boys (Parent report)	1.90 (.39)	2.03 (.32)	2.37 (.46)	1.84 (.34)	n.s.

[2] U= Uninvolved, P= Permissive; An = Authoritarian; Av = Authoritative

Non-Residential Father:

Mean Scores on Family Process and Adolescent Outcome Measures, by Youth Report of Non-Residential Father's Parenting Style

	Uninvolved	Permissive	Authoritarian	Authoritative	Group Comparisons[3]
Youth Report of Limit-setting	3.30 (.13)	3.39 (.16)	2.90 (.14)	3.32 (.16)	n.s.
Youth Report of Limit-breaking	.51 (.04)	.45 (.05)	.47 (.5)	.43 (.05)	n.s.
Parent Report of Limit-setting	4.51 (.12)	4.30 (.14)	4.30 (.12)	4.10 (.14)	n.s.
Parent Report of Limit-breaking	.43 (.05)	.35 (.05)	.40 (.05)	.39 (.05)	n.s.
Youth Report of Routines	14.19 (.36)	14.76 (.44)	13.92 (.40)	15.56 (.44)	Av > U, An
Youth Report of Monitoring	2.03 (.24)	5.30 (.30)	3.15 (.26)	6.54 (.29)	U <An<P<Av
Youth report of Substance Use	.88 (.05)	.81 (.07)	1.18 (.06)	.80 (.07)	An > U, P, An
Youth report of delinquency	1.30 (.12)	1.25 (.14)	1.74 (.13)	1.06 (.14)	An > U, P, Av
Behavioral and Emotional Problems Scale for Girls (Youth report)	2.26 (.15)	1.85 (.18)	2.83 (.16)	2.05 (.20)	An > U, P, Av
Behavioral and Emotional Problems Scale for Boys (Youth report)	2.35 (.16)	1.96 (.19)	2.53 (.17)	1.95 (.17)	An > P, Av
Behavioral and Emotional Problems Scale for Girls (Parent report)	1.84 (.18)	1.18 (.22)	2.05 (.20)	1.40 (.25)	P < U, An An > P, Av
Behavioral and Emotional Problems Scale for Boys (Parent report)	2.13 (.27)	1.74 (.29)	2.40 (.25)	1.93 (.25)	n.s.

Other Evidence of Validity

Residential Mother:

The χ^2 for youth's reports of residential mother's parenting style and having recently broken a limit was statistically significant (χ^2 (3)=29.4, $p \leq .001$), indicating that the distribution of residential mother's parenting styles differed by the likelihood of the youth reporting having broken a limit in the last 30 days. Specifically, residential mothers in families at less than 50% of the poverty line were over-represented in the

[3] U= Uninvolved, P= Permissive; An = Authoritarian; Av = Authoritative

authoritarian and uninvolved parenting styles, and under-represented in the permissiveness parenting style.

The χ^2 for youth's reports of residential mother's parenting style and parent's report of the youth having recently broken a limit was statistically significant (χ^2 (3)=16.3, p$\leq$ .001), indicating that the distribution of residential mother's parenting styles differed by the likelihood of the parent reporting that the youth had broken a limit in the last 30 days. Specifically, residential mothers in families at less than 50% of the poverty line were over-represented in the authoritarian and uninvolved parenting styles, and under-represented in the permissiveness parenting style.

The χ^2 for youth's reports of residential mother's parenting style and poverty level was statistically significant (χ^2 (3)=28.0, p$\leq$ .001), indicating that the prevalence of each parenting style differed by poverty level. Specifically, residential mothers in families at less than 50% of the poverty line were over-represented in the authoritarian and uninvolved parenting styles.

Residential Father:

The χ^2 for youth's reports of residential father's parenting style and having recently broken a limit was statistically significant (χ^2 (3)=27.6, p$\leq$ .001), indicating that the distribution of residential father's parenting styles differed by the likelihood of the youth reporting having broken a limit in the last 30 days. Specifically, residential fathers in families at less than 50% of the poverty line were over-represented in the authoritarian and uninvolved parenting styles, and under-represented in the permissiveness parenting style.

The χ^2 for youth's reports of residential father's parenting style and parent's report of the youth having recently broken a limit was <u>not</u> statistically significant (χ^2 (3)=3.7, p=n.s., indicating that the distribution of residential father's parenting styles did <u>not</u> differ by the likelihood of the parent reporting that the youth had broken a limit in the last 30 days.

The χ^2 for youth's reports of residential father's parenting style and poverty level was statistically significant (χ^2 (3)=7.8, $\leq$ .05), indicating that the prevalence of each parenting style differed by poverty level. Specifically, residential fathers in families at less than 50% of the poverty line were over-represented in the authoritarian and, especially, the uninvolved parenting style, and under-represented in the permissiveness parenting style.

Non-Residential Mother:

The χ^2 for youth's reports of non-residential mother's parenting style and having recently broken a limit was <u>not</u> statistically significant (χ^2 (3)=2.1, p= n.s.), indicating that the distribution of non-residential mother's parenting styles did <u>not</u> differ by the likelihood of the youth reporting having broken a limit in the last 30 days

The χ^2 for youth's reports of non-residential mother's parenting style and parent's report of the youth having recently broken a limit was also non-significant (χ^2 (3)=1.5, p= n.s.), indicating that the distribution of non-residential mother's parenting styles did not differ by the likelihood of the parent reporting that the youth had broken a limit in the last 30 days.

The χ^2 for youth's reports of non-residential mother's parenting style and poverty level was not statistically significant (χ^2 (3)=0.9, p=ns), indicating that the prevalence of non-residential mothers' parenting styles did not differ by poverty level.

Non-Residential Father:

The χ^2 for youth's reports of non-residential father's parenting style and having recently broken a limit was not statistically significant (χ^2 (3)=1.6, p= n.s.), indicating that the distribution of non-residential father's parenting styles did not differ by the likelihood of the youth reporting having broken a limit in the last 30 days.

The χ^2 for youth's reports of non-residential father's parenting style and parent's report of the youth having recently broken a limit was also non-significant (χ^2 (3)=1.1, p= n.s.), indicating that the distribution of non-residential father's parenting styles did not differ by the likelihood of the parent reporting that the youth had broken a limit in the last 30 days

The χ^2 for youth's reports of non-residential father's parenting style and poverty level was statistically significant (χ^2 (3)=8.5, $p \leq .04$), indicating that the prevalence of each parenting style differed by poverty level. Specifically, non-residential fathers in families at less than 50% of the poverty line were over-represented in the uninvolved and, especially, the authoritarian parenting styles, and under-represented in the permissive parenting styles.

References:

Baumrind, D. (1991). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Lerner, & A. C. Petersen (Eds.), The encyclopedia of adolescence (pp. 746-758). New York: Garland.

Maccoby, E. E. & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Series Ed.) & E. Mavis Hetherington (Vol. Ed.), Handbook of child psychology: Vol. 4. Socialization, personality, and social development (pp. 1-101). New York: Wiley.

Michael, A. and Sameroff, A. J. (1995, April). Parenting style: Is the whole more than the sum of its parts? Poster presented at the Biennial Meeting of the Society for Research in Child Development, Indianapolis, IN.

Family Process Measures

Parent's Religiosity–Parent Report

Description & Relevance:

Religion/Spirituality is an important part of life for the majority of Americans. Religious belief systems affect a wide variety of outcomes relevant to labor market participation and family functioning (Goldscheider & Goldscheider, 1988; Hunsberger, 1985). Participation in religious activities predicts more global outcomes such as deviancy, early sexual behavior, and prosocial behavior (Amoateng & Bahr, 1986; Hundleby & Mercer, 1987). Religiosity is also related to parental support and control of youth (Gunnoe, Hetherington, & Reiss, 1999; Weigert & Thomas, 1972). Although frequency of attending religious activities is generally viewed as the most critical measure of participant's religiosity, recent research suggests that other variables may be better indicators of religiosity, particularly among African-Americans (Brody, Stoneman, & Flor, 1996).

Source of Items

Researchers at Child Trends developed the following six items to measure parent's religiosity.

Items and Response Categories

The following statements describe the way some people may feel about religion and religious practices. After each statement, please indicate whether you believe each statement to be True or False.

1. *I don't need religion to have good values. (reverse coded)*
2. *The Bible/Koran/Torah/religious teachings should be obeyed exactly as written in every situation.*
3. *I often ask God to help me make decisions.*
4. *God has nothing to do with what happens to me personally. (reverse coded)*
5. *I pray MORE than once a day.*
   1 TRUE 0 FALSE
6. *In the past 12 months, how often have you attended a worship service (like church or synagogue service or mass)?*
   1 = once a month or more 0 = less than once a month

Scale Creation

The items were summed to produce a scale of parents' religiosity. The scale ranges from 0 (not religious) to 6 (very religious). Higher scores indicate greater religiosity of the parent.

Variable Name: FP_PPRELIG

Age of Youth: 12–16 years

Frequencies

Parents 6-item religiosity scale (higher scores indicate more religious)

FP_PPRELIG	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	214	3.6	214	3.6
1	278	4.6	492	8.2
1.25	100	1.7	592	9.9
2	613	10.2	1205	20.1
2.5	114	1.9	1319	22.0
3	1087	18.2	2406	40.2
3.5	92	1.5	2498	41.8
4	1284	21.5	3782	63.2
4.75	49	0.8	3831	64.0
5	1215	20.3	5046	84.3
6	937	15.7	5983	100.0

The data depict levels of religiosity that tend to be high, but show variation as well.

Psychometric Assessment:

Data Quality

A score on the parent religiosity scale was obtained for respondents who answered at least five of the six items. Respondents who answered only five of the six items were assigned a weighted score based on the 6-point scale (i.e., rawscore * (6/6-missing)). Respondents who answered fewer than five items were coded as missing. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Parents religiosity	5983	28	3.77	1.59

Internal Consistency/Reliability

Cronbach's alpha for this scale is considered moderate in terms of consistency/ reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Parent Religiosity (6-item)	.60

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity of the present religiosity scale. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior, as expected based on theory or previous research.

For purposes of checking construct and predictive validity, a three-level variable for parents' religiosity was created. The extreme levels each represent approximately one-quarter of the sample. Data shown below are for the top quarter ("more religious") and the bottom quarter ("less religious").

Other evidence suggestive of validity includes whether religiosity differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Religiosity for the top and bottom levels of Youth report of number of days per week that family does something religious together.

Parent report of religiosity is strongly related to youth report of religious attendance. Youth who report attending church as a family more often have parents who rated themselves higher on religiosity.

Means, standard errors and t-values are reported in the following table.

Mean Scores for Parent Report of Religiosity, by Youth Report of Number Days Per Week that Family Does Something Religious Together (Fewer vs. More Days)

	Youth Report Fewer Days Doing Something Religious as a Family	Youth Report More Days Doing Something Religious as a Family	t-value
Parent Report of Religiosity (range 0–6)	2.83 (.04)	4.21 (.03)	-30.81***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom quarters of Parent report of Parent's Religiosity.

Parent report of religiosity is strongly and negatively associated with the frequency youth reported behavior problems. Parents scoring higher on the religiosity scale had youth who reported fewer instances of substance abuse, delinquency, and, for girls, fewer behavior problems.

Means, standard errors and t-values are reported in the tables.

Mean Scores for Youth Behavior Problems by Parent's Religiosity (More vs. Less Religious)

	Parent More Religious	Parent Less Religious	t-value
Youth Report of Substance Use (range: 0–3)	0.72 (.02)	1.01 (.03)	-8.25***
Youth Report of Delinquency (range: 0–10)	1.10 (.04)	1.33 (.05)	-3.93***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.06 (.06)	2.24 (.07)	-2.08*
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.06 (.05)	2.06 (.06)	0.07
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.23 (.06)	1.34 (.07)	-1.13
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.62 (.07)	1.73 (.08)	-1.04

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Parent report of religiosity is strongly associated with youth report of their parent's marital relationship. Parents scoring higher on the religiosity scale were rated by their youth as being more supportive of each other.

Mean Scores for Youth and Parent Reports of (Parents') Marital Relationship by Parent's Religiosity (More vs. Less Religious)

	Parent More Religious	Parent Less Religious	t-value
Youth report of mother's supportiveness of father (range: 0–24)	19.21 (.12)	18.32 (.15)	4.73***
Youth report of father's supportiveness of mother (range: 0–24)	19.34 (.13)	18.60 (.16)	3.48***
Parent report of spouse's (i.e., R father's) supportiveness (range: 0–24)	15.29 (.10)	14.94 (.13)	1.57

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Parent's Religiosity for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Parent report of religiosity and poverty level are significantly associated. Parents of families with incomes greater than 200% of the poverty line were rated as less religious than parents of families with incomes less than 50% of the poverty line.

Means, standard errors and t-values are reported in the table.

Mean Score for Parent Religiosity by Poverty Level (<50% vs. ≥ 200%)

	<50% of the Poverty Level	≥200% of the Poverty Level	t-value
Parent Religiosity	3.82 (.03)	3.69 (.04)	-2.70**

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other versions of the scale

Other versions of this religiosity scale are possible, though the 6-item scale described in detail above is recommended.

The item asking youth "how often in a typical week their family does something religious together" may be added to this scale. Coding responses of more than once a week as "1" and never or once a week as "0," Cronbach's alpha for this 7-item scale is .65. [We chose not to include this item in the recommended scale because: (1) youth are reporting on *family* religiosity, not *parents'* religiosity; and (2) this youth report item was designed for and is already contained in the "Family Routines Index."]

Some researchers distinguish between religious beliefs and religious behaviors (D. Larson, personal communication with K. Moore, March 4, 1999). A 4-item "religious beliefs" subscale could be created (containing the first four items listed above), but this subscale has low internal consistency (Cronbach's alpha = .43). The remaining three items (pertaining to praying, church attendance, and doing something religious as a family) could constitute a "religious behaviors" subscale. Despite an adequate alpha (.60), we reiterate that this subscale refers to both parent and family religious behaviors and contains a youth-report item already in the "Family Routines Index." Thus, analysts who choose to use this scale usually will not want to include the "Family Routines Index" in the same model.

Other researchers distinguish between public and private indicators of religiosity (e.g., Strayhorn, Weidman, & Larson, 1990). A 5-item "private religiosity" subscale could be created (containing the first five items listed above), but this subscale has questionable internal consistency (Cronbach's alpha = .55). The remaining two items (pertaining to church attendance, and doing something religious as a family) could be combined into a "public religiosity" composite variable. However, these two items are actually not very highly correlated (r=.39) and, thus, analysts may not wish to combine them.

Alternative Measures	Alpha
Parent Religiosity (7-item)	.65
Parent Religious Beliefs (4-item)	.43
Parent/Family Religious Behaviors (3-item)	.60
Parents' "Private" Religiosity (5-item)	.55

References:

Amoateng, A.Y., & Bahr, S.J. (1986). Religion, family, and adolescent drug abuse. Sociological Perspective, 29, 53-76.

Brody, G. H., Stoneman, Z., & Flor, D. (1996). Parental religiosity, family processes, and youth competence in rural, two-parent African American families. Developmental Psychology, 32, 696-706.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Goldscheider, C. & Goldscheider, F. K. (1988). Ethnicity, religiosity, and leaving home: The structural and cultural bases of traditional family values. Sociological Forum, 3, 525-547.

Gunnoe, M.L., Hetherrington, E.M., & Reiss, D. (1999). Parental religiousity, parenting style, and adolescent social responsibility. Journal of Early Adolescence, 19(2), 199-225.

Hundleby, J. D. & Mercer, G. W. (1987). Family and friends as social environment and their relationship to young adolescents' use of alcohol, tobacco, and marijuana. Journal of Marriage and the Family, 49, 151-164.

Hunsberger, B. (1985). Religion, age, life satisfaction, and perceived sources of religiousness: A study of older persons. Journal of Gerontology, 40, 615-620.

Strayhorn, J. M., Weidman, C. S., & Larson, D. (1990). A measure of religiousness, and its relation to parent and child mental health variables. Journal of Community Psychology, 18, 34-43.

Weigert, A. J. & Thomas, D. L. (1972). Parental support, control, and adolescent religiosity: An extension of previous research. Journal of Scientific Study of Religion, 11, 389-393.

Contextual Measures

Family/Home Risk Index

Description & Relevance:

A child may be affected through multiple pathways such as a lack of material resources, the characteristics of the neighborhood and the home environment (Bradley, Whiteside, Mundfrom, Casey, Kelleher, & Pope, 1994). Risk factors from these different domains have been shown to predict adolescent health and behavior problems such as drug abuse, delinquency, and teen pregnancy (Dryfoos, 1990; Haggerty, Sherrod, Garmezy, & Rutter, 1996; Simcha-Fagan, Gersten, & Langner, 1986). Garmezy (1987) found that the number of risks predicts increasingly detrimental outcomes. The Home Observation for Measurement of the Environment (HOME; Caldwell & Bradley, 1984) measures multiple risk factors associated with problem behaviors in youth.

Source of Items:

These items were drawn from the existing pool of questions present in the NLSY 97 questionnaire. The Family/Home Risk Index is based on Caldwell and Bradley's Home Observation for Measurement of the Environment (HOME; Caldwell & Bradley, 1984) and on personal correspondence with Robert Bradley on the development of a HOME index for adolescents. However, it should be noted that this index capitalizes on available measures, rather than reflecting an a priori set of items, specifically included for this purpose. Hence, it is not comparable to the HOME-SF (Home Observation for Measurement of the Environment, Short Form) included in the NLSY79.

Items and Response Categories:

Home Physical Environment

1. *In the past month, has your home usually had electricity and heat when you needed it? (Youth Report)*

   No = Risk Yes = Not coded as risk

2. *How well kept is the interior of the home in which the youth respondent lives? (Interviewer Report)*
3. *How well kept is the exterior of the housing unit where the youth respondent lives? (Interviewer Report)*

   Questions 2 & 3 were combined.

   Poorly Kept on either = Risk Well/Fairly Well Kept on both = Not coded as risk

Neighborhood

4. *How well kept are most of the buildings on the street where the adult/youth resident lives? (Interviewer Report)*

   Poorly Kept = Risk Well/Fairly Well Kept = Not coded as Risk

5. *When you went to the respondent's neighborhood/home, did you feel concerned for your safety? (Interviewer Report)*

Yes = Risk No = Not coded as Risk

6. *In a typical week, how many days from 0 to 7 do you hear gunshots in your neighborhood? (Youth Report)*

1 or more days = Risk 0 days = Not coded as Risk

Enriching Activities

7. *In the past month, has your home usually had a quiet place to study? (Youth Report)*

No = Risk Yes = Not coded as Risk

8. *In the past month, has your home usually had a computer? (Youth Report)*

No = Risk Yes = Not coded as Risk

9. *In the past month, has your home usually had a dictionary? (Youth Report)*

No = Risk Yes = Not coded as Risk

Religious Behavior

10. *In the past 12 months, how often have you attended a worship service (like church or synagogue service or mass)? (Parent Report)*

11. *In a typical week, how many days from 0 to 7 do you do something religious as a family such as go to church, pray or read the scriptures together? (Youth Report)*

Questions 10 & 11 were combined.

If response was “never” on both = Risk
If response was other than “never” on one = Not coded as Risk

School Involvement

12. *In the last three years have you or your [spouse/partner] attended meetings of the parent-teacher organization at [this youth]'s school? (Parent Report)*

13. *In the last three years have you or your [spouse/partner] volunteered to help at the school or in the classroom? (Parent Report)*

Questions 12 & 13 were combined.

If response was no on both = Risk
If response was yes on one = Not coded as Risk

Family Routines

14. *In a typical week, how many days from 0 to 7 do you eat dinner with your family? (Youth Report)*

0 days = Risk 1 or more days = Not coded as Risk

15. *In a typical week, how many days from 0 to 7 does housework get one when it is supposed to, for example cleaning up after dinner, doing dishes, or taking out the trash? (Youth Report)*

0 days = Risk 1 or more days = Not coded as Risk

16. *In a typical week, how many days from 0 to 7 do you do something fun as a family such as play a game, go to a sporting event, go swimming and so forth? (Youth Report)*

0 days = Risk 1 or more days = Not coded as Risk

17. *In a typical [school week/work week/week], did you spend any time watching TV? (Youth Report)*

18. *In that week, on how many weekdays did you spend time watching TV?*
19. *On those weekdays, about how much time did you spend per day watching TV?*

Questions 17, 18, & 19 were combined.

5 or more hours = Risk Less than 5 hours = Not coded as Risk

Parent Characteristics

Did the adult respondent have any special circumstances that affected his/her ability to answer any portion of the survey? (Interviewer Report)

20. *Physical disabilities:* *Hard of hearing?*
Unable to see well?
Physical handicapped?

Any of these three physical disabilities = Risk
No physical disability = Not coded as Risk

21. *Mental disabilities:* *Mentally handicapped?*
Command of English is poor?
Unable to read?

Any of these three mental disabilities = Risk
No mental disability = Not coded as Risk

22. *Alcohol/Drug disability:* *Under the influence of alcohol or drugs?*

Yes = Risk No = Not coded as Risk

Parenting

23. *Monitoring Scale (youth report) for youth's residential mother*
24. *Monitoring Scale (youth report) for youth's residential father*

Questions 23 & 24 were combined.

If neither parent high on monitoring (Score less than 6) = Risk
If either parent high on monitoring (Score greater than 6) = Not coded as Risk

25. *Parent-Youth Relationship Scale (youth report) for residential mother*
26. *Parent-Youth Relationship Scale (youth report) for residential father*

Questions 25 & 26 were combined.

If neither parent was warm (Score less than 18) = Risk
If either parent was warm (Score greater than 18) = Not coded as Risk

27. *When you think about how she (residential mother) acts toward you, in general, would you say she is very supportive, somewhat supportive, or not very supportive? (Youth Report)*
28. *In general, would you say that she (residential mother) is permissive or strict about making sure you did what you were supposed to do? (Youth Report)*

Questions 27 & 28 were combined.

If residential mother was not supportive and was permissive = Risk
Otherwise = Not coded as Risk

29. *When you think about how he (residential father) acts toward you, in general, would you say he is very supportive, somewhat supportive, or not very supportive? (Youth Report)*
30. *In general, would you say that he (residential father) is permissive or strict about making sure you did what you were supposed to do? (Youth Report)*

Questions 29 & 30 were combined.

If residential father was not supportive and was permissive = Risk
Otherwise = Not coded as Risk

Index Creation

Each item (or set of items) was coded into risk categories, so that 1 = Risk and 0 = Not coded as Risk. The items were then summed to produce a composite score for the Family/Home Risk Index; ranging from 0 to 21. Higher scores indicate a higher risk environment.

Variable Name: FP_ADHRISKI

Age of Youth: 12–14 years

Frequencies:

Family/Home Risk Index (higher scores indicate higher risk)

FP_ADHRISKI	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	760	15.9	760	15.9
1	893	18.6	1653	34.5
1.25	8	0.2	1661	34.7
2	831	17.3	2492	52.0
2.25	36	0.8	2528	52.8
2.5	3	0.1	2531	52.8
2.75	1	0.0	2532	52.8
3	529	11.0	3061	63.9
3.25	221	4.6	3282	68.5
3.5	7	0.1	3289	68.6
3.75	4	0.1	3293	68.7
4	340	7.1	3633	75.8
4.25	150	3.1	3783	78.9
4.5	19	0.4	3802	79.3
4.75	3	0.1	3805	79.4
5	273	5.7	4078	85.1
5.25	101	2.1	4179	87.2
5.5	16	0.3	4195	87.5
5.75	4	0.1	4199	87.6
6	149	3.1	4348	90.7
6.25	77	1.6	4425	92.3
6.75	10	0.2	4435	92.6
7	106	2.2	4541	94.8
7.25	56	1.2	4597	95.9
7.75	4	0.1	4601	96.0
8	68	1.4	4669	97.4
8.25	1	0.0	4670	97.5
8.5	28	0.6	4698	98.0
8.75	6	0.1	4704	98.2
9	30	0.6	4734	98.8
9.5	10	0.2	4744	99.0
10	19	0.4	4763	99.4
10.5	6	0.1	4769	99.5
11	12	0.3	4781	99.8
11.5	2	0.0	4783	99.8
11.75	1	0.0	4784	99.8
12	2	0.0	4786	99.9
13	1	0.0	4787	99.9
13.75	1	0.0	4788	99.9
14.25	1	0.0	4789	99.9
14.75	1	0.0	4790	100.0
15	1	0.0	4791	100.0
15.25	1	0.0	4792	100.0

The data depict the majority of family/home environments with few risks and none with 16-21 risks, but show some variation, as well.

Psychometric Assessment:

Data Quality

Scores on the Family/Home Risk Index were obtained for respondents who answered at least sixteen of the twenty-one items. Respondents who answered sixteen to 20 of the twenty-one items were assigned a weighted score based on the 21-point scale (i.e., rawscore *(21/21-missing)). Respondents who answered fewer than sixteen items were coded as missing on the Family/Home Risk Index.

Measure	N	N missing	Mean	SD
Family/Home Risk Index	4792	652	2.81	2.33

Internal Consistency/Reliability

Not Applicable. (This is an index rather than a scale. That is, it is not assumed that individual domains on the Family/Home Risk Index should be correlated (i.e., internally consistent) with other domains of the Family/Home Risk Index.)

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

Other evidence suggestive of validity includes whether scores on the Family/Home Risk Index differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

For purposes of validity, a three-level variable for the Family/Home Risk Index was created. Each level represents approximately one-third of the sample. Data shown below are for the top third ("higher risk") and the bottom third ("lower risk").

Construct Validity

No other risk measure of the family/home environment was collected in this cohort, thus the construct validity could not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Family/Home Risk Index.

Youth in families with higher scores on the Family/Home Risk Index report more instances of substance use, delinquency, and behavior problems than youth in families with lower scores on the Family/Home Risk Index. Parents in families with lower scores on the Family/Home Risk Index reported fewer youth behavior problems.

Means, standard errors, and t-values are reported in the following table.

Mean Scores on Youth Behavior Problems by the Family/Home Risk Index (higher vs. lower risk)

	Lower Risk	Higher Risk	t-value
Youth Report of Substance Use (range: 0–3)	0.51 (.02)	0.98 (.03)	13.53***
Youth Report of Delinquency (range: 0–10)	0.57 (.03)	1.33 (.03)	17.29***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	1.54 (.05)	2.82 (.06)	16.63***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	1.66 (.05)	2.71 (.05)	14.21***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	.89 (.06)	1.72 (.06)	9.72***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.31 (.06)	2.31 (.07)	10.37***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Family/Home Risk Index for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Families with incomes lower than 50% of the poverty line have higher scores on the Family/Home Risk Index than families with incomes greater than 200% of the poverty line, indicating a higher risk environment for families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for the Family/Home Risk Index by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Family/Home Risk Index (range: 0–21)	3.27 (.05)	1.91 (.06)	-16.93***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Bradley, R. H., Whiteside, L., Mundfrom, D. J., Casey, P. H., Kelleher, K. J., and Pope, S. K. (1994). Early indications of resilience and their relation to experiences in the home environments of low birthweight, premature children living in poverty. Child Development, 65, 346-360.

Caldwell, B.M. & Bradley, R. H. (1984). Home observation for measurement of the environment (Rev. Ed.). Little Rock, AR: University of Arkansas.

Dryfoos, J. G. (1990). Adolescents at risk: Prevalence and prevention. New York: Oxford University Press.

Haggerty, R. J., Sherrod, L. R., Garmezy, N., & Rutter, M. (1996). Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions. Cambridge: University Press.

Simcha-Fagan, O., Gersten, J. C., & Langner, T. (1986). Early precursors and concurrent correlates of illicit drug use in adolescents. Journal of Drug Issues, 16, 7-28.

Contextual Measures

Physical Environment Risk Index

Description & Relevance:

Children's development may be affected through many different pathways, including through the child's physical environment (Bradley, Whiteside, Mundfrom, Casey, Kelleher, & Pope, 1994). Higher risk physical environments have been linked to an increase in children's problem behaviors (Dryfoos, 1990; Haggerty, Sherrod, Garmezy, & Rutter, 1996).

Source of Items:

This index was developed by researchers at Child Trends. The items are a sub-set of items from the Family/Home Risk Index, however for this index not all variables were coded as dichotomous indicators of risk. Researchers will not usually want to use this index and the Family/Home Risk Index in the same model.

Items and Response Categories:

1. *In the past month, has your home usually had electricity and heat when you needed it? (Youth Report)*

   No = Risk (1) Yes = Not coded as Risk (0)

2. *How well kept are most of the buildings on the street where the adult/youth resident lives? (Interviewer report)*

   Poorly Kept = High Risk (2)
   Fairly Well Kept = Moderate Risk (1)
   Well Kept = Not coded as Risk (0)

3. *How well kept is the interior of the home in which the youth respondent lives? (Interviewer report)*

   Poorly kept = High Risk (2)
   Fairly Well Kept = Moderate Risk (1)
   Well Kept = Not coded as Risk (0)

4. *When you went to the respondent's neighborhood/home, did you feel concerned for your safety? (Interviewer report)*

   Yes = Risk (1) No = Not coded as Risk (0)

5. *In a typical week, how many days from 0 to 7 do you hear gunshots in your neighborhood? (Youth Report)*

   1 or more days = Risk (1) 0 days = Not coded as Risk (0)

Index Creation

Each item was coded into risk categories, so that 2= High Risk (for items #2 and #3), 1 = Risk or Moderate Risk, and 0 = Not coded as Risk. The items were then summed to produce a composite score for the Physical Environment Risk Index; ranging from 0 to 7. Higher scores indicate a higher risk physical environment.

Variable Name: FP_ADPENVRI

Age of Youth: 12–14 years

Frequencies:

Physical Environment Risk Index (higher scores indicate higher risk)

FP_ADPENVRI	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	1789	37.7	1789	37.7
1	1012	21.4	2801	59.1
1.25	64	1.4	2865	60.4
2	883	18.6	3748	79.1
2.5	39	0.8	3787	79.9
3	518	10.9	4305	90.8
3.75	17	0.4	4322	91.2
4	254	5.4	4576	96.5
5	121	2.6	4697	99.1
6	36	0.8	4733	99.9
6.25	2	0.0	4735	99.9
7	5	0.1	4740	100.0

The data depict the majority of physical environments with few risks, but does show some variation, as well.

Psychometric Assessment:

Data Quality

Scores on the Physical Environment Risk Index were obtained for respondents who answered at least four of the five items. Respondents who answered four of the five were assigned a weighted score based on the 7-point scale (i.e., rawscore * (5/5-missing)). Respondents who answered less than four items were coded as missing on the Physical Environment Risk Index.

Measure	N	N missing	Mean	SD
Physical Environment Risk Index	4740	704	1.36	1.43

Internal Consistency/Reliability

Not Applicable. (This is an index rather than a scale. That is, it is not assumed that the frequency of one physical environment risk should be correlated (i.e., internally consistent) with the frequency of another physical environment risk.)

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of validity, a three-level variable for the Physical Environment Risk Index was created. The lowest level represents no physical environment risks and the highest level represents a score of three or more on the Risk Index. Data shown below are for these two levels.

Other evidence suggestive of validity includes whether Physical Environment risk differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

No other measure of the family/home environment was collected in this cohort, thus the construct validity could not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Physical Environment Risk Index.

Youth in a better physical environment reported significantly and substantially fewer instances of substance use, delinquency, and behavior problems. Parents in better physical environments also reported fewer youth behavior problems.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Youth Behavior Problems by the Physical Environment Risk Index (no risks vs. score of 3 or more on Physical Environment Risks Index)

	Score of 3 or more on Physical Environment Risks Index	No Physical Environment Risk	t-value
Youth Report of Substance Use (range: 0–3)	.85 (.03)	0.64 (.02)	5.07***
Youth Report of Delinquency (range: 0–10)	1.16 (.04)	0.69 (.03)	8.93***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.49 (.07)	1.93 (.05)	6.22***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.48 (.07)	1.89 (.05)	7.00***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.60 (.08)	1.03 (.06)	5.78***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.46 (.08)	1.42 (.06)	9.52***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Physical Environment Risk Index for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Families with incomes lower than 50% of the poverty line have higher scores on the Physical Environment Risk Index than families with incomes greater than 200% of the poverty line, indicating a higher risk environment for families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for the Physical Environment Risk Index by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Physical Environment Risk Index (range: 0–7)	1.77 (.03)	0.70 (.04)	-22.08***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Bradley, R. H., Whiteside, L., Mundfrom, D. J., Casey, P. H., Kelleher, K. J., and Pope, S. K. (1994). Early indications of resilience and their relation to experiences in the home environments of low birthweight, premature children living in poverty. Child Development, 65, 346-360.

Dryfoos, J. G. (1990). Adolescents at risk: Prevalence and prevention. New York: Oxford University Press.

Haggerty, R. J., Sherrod, L. R., Garmezy, N., & Rutter, M. (1996). Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions. Cambridge: University Press.

Contextual Measures

Enriching Environment Index

Description & Relevance:

Children's development may be affected through many different pathways, including through a lack of material and enriching resources (Bradley, Whiteside, Mundfrom, Casey, Kelleher, & Pope, 1994). Some research has found that a positive and enriching environment can serve as a protective factor against behavior problems in youth (Cowen & Work, 1988; Garmezy, 1985).

Source of Items:

This scale was developed by researchers at Child Trends. These items are a sub-set of the Family/Home Risk Index, and thus researchers will not usually want to use both measures in a model.

Items and Response Categories:

1. *In the past month, has your home usually had a computer? (Youth Report)*

   No = Not coded as Enriching Yes = Enriching

2. *In the past month, has your home usually had a dictionary? (Youth Report)*

   No = Not coded as Enriching Yes = Enriching

3. *In a typical [school week/work week/week], did you spend any time taking extra classes or lessons for example, music, dance, or foreign language lessons? (Youth Report)*

   No = Not coded as Enriching Yes = Enriching

Index Creation

Each item was coded, so that 0 = Not coded as enriching and 1 = Enriching. The items were then summed to produce a composite score for the Enriching Environment Index; ranging from 0 to 3. Higher scores indicate a more enriching environment.

Variable Name: FP_ADENRCHI

Age of Youth: 12–14 years

Frequencies:

Enriching environment index (higher score indicate more enriching)

FP_ADENRCHI	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	187	3.5	187	3.5
1	1998	37.0	2185	40.5
2	2324	43.1	4509	83.5
3	889	16.5	5398	100.0

The data depict that most youth's have one or more enrichment opportunities, although there is some variability. Only one in six have all three enrichment opportunities.

Psychometric Assessment:

Data Quality

Scores on the Enriching Environment Index were obtained for respondents who answered all three items. Respondents who answered fewer than three items were coded as missing on the Enriching Environment Index. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Enriching Environment Risk Index	5398	46	1.73	0.77

Internal Consistency/Reliability

Not Applicable. (This is an index rather than a scale. That is, it is not assumed that the presence of an enriching activity should be correlated (i.e., internally consistent) with the presence of another enriching activity.)

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the family process variable is significantly associated with the *same* family process construct measured differently.

Predictive validity is apparent when the family process variable is significantly associated with *other* family process variables, and/or youth behavior problems.

For purposes of validity, a three-level variable for the Enriching Environment Index was created. The lowest level represents no enriching opportunities and the highest level represents all three enriching opportunities. Data shown below are for these two levels.

Other evidence suggestive of validity includes whether the Enriching Environment Index differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

No other measure of enriching resources in the home was collected in this cohort; thus the construct validity could not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Enriching Environment Index.

Enriching environments and behavior problems are strongly and negatively associated. The youth in more enriching environments reported fewer experiences with substance use, delinquency, and behavior problems. Parent in more enriching environments report fewer youth behavior problems.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Youth Behavior Problems by the Enriching Environment Index (0 vs. 3 opportunities)

	All 3 Opportunities	0 Opportunities	t-value
Youth Report of Substance Use (range: 0–3)	0.89 (.07)	0.63 (.03)	,3.25***
Youth Report of Delinquency (range: 0–10)	1.18 (.10)	0.75 (.04)	,4.08**
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.77 (.18)	1.88 (.07)	,4.64***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	2.59 (.15)	1.90 (.08)	,4.14***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.60 (.22)	0.92 (.08)	,2.87**
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	2.23 (.21)	1.34 (.10)	,3.85***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Enriching Environment Index for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Youth living in families with incomes greater than 200% of the poverty line reported a more enriching environment than youth living in families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for the Enriching Environment Index by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Enriching Environment Index (range: 0–3)	1.61 (0.02)	2.08 (0.02)	18.72***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Bradley, R. H., Whiteside, L., Mundfrom, D. J., Casey, P. H., Kelleher, K. J., and Pope, S. K. (1994). Early indications of resilience and their relation to experiences in the home environments of low birth weight, premature children living in poverty. Child Development, 65, 346-360.

Cowen, E. L. & Work, W. C. (1988). Resilient children, psychological wellness, and primary prevention. American Journal of Community Psychology, 16, 591-608.

Garmezy, N. (1985). Stress-resistant children: The search for protective factors. In J. E. Steveson (Ed.), Recent research in the development of psychopathology (pp. 213-233). Journal of Child Psychology and Psychiatry (Book Supplement No. 4).

Adolescent Outcome Measures

Behavioral and Emotional Problems Scale for Girls–Youth Report

Description & Relevance:

Behavior problems have been linked to many family and neighborhood characteristics. For example, youth in families with supportive parent-youth relationships (Rothbaum, Rosen, Pott, & Beatty, 1995) are less likely to exhibit behavior problems. Research also suggests that living in a neighborhood with more risks results in a higher incidence of behavior problems such as throwing tantrums (Duncan, Brooks-Gunn, & Klebanov, 1994). Youth behavior problems are predictive of some adult outcomes such as academic achievement, and employment (Farmer, 1995; Tremblay, Massey, Perron, & Leblanc, 1992).

Source of Items:

The NLSY 97's measure of behavioral and emotional problems utilizes a set of six items developed as an indicator of children's mental health for the National Health Interview Survey (NHIS). The items have also been used in the National Survey of America's Families (NSAF), though in the NSAF all items were asked of both genders (Ehrle & Moore, 1999). The items for the behavioral and emotional problems (NHIS and NSAF) indicator were selected from the Child Behavior Checklist (CBCL), a standardized questionnaire used to obtain parent's ratings of their children's problems and competencies (Achenbach & Edelbrock, 1987). Items selected for the NHIS were identified as providing the best discrimination between demographically similar children who were referred or not referred for mental health services. Of the six items in the NLSY 97 questionnaire, two items (1. lies or cheats and 2. unhappy, sad, or depressed) were asked of both boys and girls. Two items (1. school work is poor and 2. has trouble sleeping) were asked only of girls. Two items (1. Can't concentrate or pay attention for long and 2. Doesn't get along with other kids) were asked only of boys. This procedure was also utilized in the NHIS.

Parallel items are asked of the Parents about their daughters.

Items and Response Categories:

1. *Your school work is poor.*
2. *You have trouble sleeping.*
3. *You lie or cheat.*
4. *You are unhappy, sad, or depressed.*

The responses were measured on a 3-point scale:

Not True	Sometimes True	Often True
0	1	2

Scale Creation

Behavioral and Emotional Problems for Girls (Youth report) was created by summing the responses to the four items for total possible score of 8 points. Higher scores indicate more frequent and/or numerous behavior problems.

Variable Name: FP_YYFBEHS

Age of Youth: 12–14 years

Frequencies:

Behavioral and Emotional Problems Scale for Girls - Youth report
(higher scores indicate more behavior problems)

FP_YYFBEHS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	405	15.5	405	15.5
1	630	24.0	1035	39.5
2	596	22.7	1631	62.3
3	481	18.4	2112	80.6
4	262	10.0	2374	90.6
5	151	5.8	2525	96.4
6	76	2.9	2601	99.3
7	17	0.6	2618	99.9
8	2	0.1	2620	100.0

Psychometric Assessment:

Data Quality

Scores on Behavioral and Emotional Problems Scale for Girls (Youth report) were obtained for respondents who answered at least three of the four items. Respondents who answered only three of the four items were assigned a weighted score based on the 8-point scale (i.e., rawscore * (4/4-missing)). Respondents who answered fewer than three items were coded as missing on the Behavioral and Emotional Problems Scale for Girls. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Behavioral and Emotional Problems for Girls (Youth report)	2620	10	2.16	1.61

Internal Consistency/Reliability

Cronbach's alpha for these scales are considered somewhat low, but adequate in terms of consistency/reliability. Internal consistency as measured by Cronbach's

alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Behavioral and Emotional Problems for Girls (Youth report)	.53

Validity

We examined construct validity, and other evidence suggestive of validity of (female) youth's reports of their behavior problems. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the adolescent outcome variable is significantly associated with the *same* adolescent outcome construct measured differently.

Predictive validity is apparent when the adolescent outcome variable is significantly associated with *other* adolescent outcome variables, and/or youth behavior as expected based on theory or previous research. Our conceptual framework is that the family process variables will be predictive of the adolescent outcome variables.

For purposes of checking construct validity, a three-level variable for Behavioral and Emotional Problems for Girls (Youth report) was created. The two extreme levels represented no behavior problems and a score of three or more on Behavioral and Emotional Problems Scale. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more behavior problems") and the bottom third ("fewer behavior problems").

Other evidence suggestive of validity includes whether Behavioral and Emotional Problems Scale for Girls differs significantly for families with incomes less than 50% of the poverty line compared families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Behavioral and Emotional Problems for Girls for the top and bottom thirds of Youth report of Behavioral and Emotional Problems for Girls.

Girls who reported more behavior problems also had parents who reported more behavior problems for their daughters.

Means, standard errors, and t-values are reported in the following table.

Mean Score for Parent report of Behavioral and Emotional Problems for Girls by Youth Report of Behavioral and Emotional Problems for Girls (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	0.64 (.07)	1.90 (.06)	12.78***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Youth report of Behavioral and Emotional Problems for Girls.

Girls who reported more behavior problems also reported higher instances of substance use and delinquency.

Means, standard errors, and t-values are reported in the following table.

Mean Score for Youth Behavior Problems for Girls by Youth Report of Behavioral and Emotional Problems for Girls (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Youth Report of Substance Use (range: 0–3)	0.27 (.05)	1.10 (.03)	15.28***
Youth Report of Delinquency (range: 0–10)	0.24 (.06)	1.38 (.04)	15.20***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Behavioral and Emotional Problems for Girls for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Girls living in families with incomes greater than 200% of the poverty line reported fewer behavior problems than girls living in families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Parent Report of Behavioral and Emotional Problems for Girls by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	2.31 (.07)	1.95 (.06)	-3.79***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Achenbach, T. & Edelbrock, C. (1987). The manual for the Youth Self-report and profile. Burlington, VT: University of Vermont.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Duncan, G. J., Brooks-Gunn, J. & Klebanov, P. K. (1994). Economic deprivation in early childhood deprivation. Child Development, 65, 296-318.

Ehrle, J. L. & Moore, K. A. (1999). Benchmarking Measures of Child and Family Well-Being in the NSAF. Draft at Child Trends, Inc.

Farmer, E. M. Z. (1995). Extremity of externalizing behavior and young adult outcomes. Journal of Child Psychology and Allied Disciplines, 36, 617-632.

Rothbaum, F., Rosen, K. S., Pott, M., Beatty, M. (1995). Early parent-child relationships and later problem behavior: A longitudinal study. Merrill-Palmer Quarterly, 41, 133-151.

Tremblay, R. E., Massey, B., Perron, D., & Leblanc, M. (1992). Early disruptive behavior, poor school achievement, delinquent behaviors, and delinquent personality: Longitudinal analyses. Journal of Consulting and Clinical Psychology, 60, 64-72.

Adolescent Outcome Measures

Behavioral and Emotional Problems Scale for Boys–Youth Report

Description & Relevance:

Behavior problems have been linked to many family and neighborhood characteristics. For example, youth in families with supportive parent-youth relationships (Rothbaum, Rosen, Pott, & Beatty, 1995) are less likely to exhibit behavior problems. Research also suggests that living in a neighborhood with more risks results in a higher incidence of behavior problems such as throwing tantrums (Duncan, Brooks-Gunn, & Klebanov, 1994). Youth behavior problems are predictive of some adult outcomes such as academic achievement, and employment (Farmer, 1995; Tremblay, Massey, Perron, & Leblanc, 1992).

Source of Items:

The NLSY 97's measure of behavioral and emotional problems utilizes a set of six items developed as an indicator of children's mental health for the National Health Interview Survey (NHIS). The items have also been used in the National Survey of America's Families (NSAF), though in the NSAF all items were asked of both genders (Ehrle & Moore, 1999). The items for the behavioral and emotional problems (NHIS and NSAF) indicator were selected from the Child Behavior Checklist (CBCL), a standardized questionnaire used to obtain parent's ratings of their children's problems and competencies (Achenbach & Edelbrock, 1987). Items selected for the NHIS were identified as providing the best discrimination between demographically similar children who were referred or not referred for mental health services. Of the six items in the NLSY 97 questionnaire, two items (1. lies or cheats and 2. unhappy, sad, or depressed) were asked of both boys and girls. Two items (1. school work is poor and 2. has trouble sleeping) were asked only of girls. Two items (1. Can't concentrate or pay attention for long and 2. Doesn't get along with other kids) were asked only of boys. This procedure was also utilized in the NHIS.

Parallel items were asked of the Parents about their sons.

Items and Response Categories:

1. *You have trouble concentrating or paying attention.*
2. *You don't get along with other kids.*
3. *You lie or cheat.*
4. *You are unhappy, sad, or depressed.*

The responses were measured on a 3-point scale:

Not True	Sometimes True	Often True
0	1	2

Scale Creation

The Behavioral and Emotional Problems Scale for Boys (Youth report) was created by summing the responses to the four items, for total possible score of 8 points. Higher scores indicate more numerous and/or frequent behavior problems.

Variable Name: FP_YYMBEHS

Age of Youth: 12–14 years

Frequencies:

Behavioral and Emotional Problems Scale for Boys - Youth report
(higher scores indicate more behavior problems)

FP_YYMBEHS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	462	16.5	462	16.5
1	640	22.8	1102	39.2
2	622	22.2	1724	61.4
3	528	18.8	2252	80.2
4	345	12.3	2597	92.5
5	146	5.2	2743	97.7
6	49	1.7	2792	99.4
7	12	0.4	2804	99.9
8	4	0.1	2808	100.0

Psychometric Assessment:

Data Quality

Scores on the Behavioral and Emotional Problems Scale for Boys (Youth report) were obtained for respondents who answered at least three of the four items. Respondents who answered only three of the four items were assigned a weighted score based on the 8-point scale (i.e., rawscore * (4/4-missing)). Respondents who answered fewer than three items were coded as missing on The Behavioral and Emotional Problems Scale for Boys (Youth report). However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Behavioral and Emotional Problems for Boys (Youth report)	2808	8	2.13	1.57

Internal Consistency/Reliability

Cronbach's alpha for these responses are considered somewhat low, but adequate in terms of consistency/reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Behavioral and Emotional Problems for Boys (Youth report)	.51

Validity

We examined construct validity, and other evidence suggestive of validity of (male) youth's reports of their behavior problems. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the adolescent outcome variable is significantly associated with the *same* adolescent outcome construct measured differently.

Predictive validity is apparent when the adolescent outcome variable is significantly associated with *other* adolescent outcome variables, and/or youth behavior as expected based on theory or previous research. Our conceptual framework is that the family process variables will be predictive of the adolescent outcome variables.

For purposes of checking construct validity, a three-level variable for the Behavioral and Emotional Problems Scale for Boys (Youth report) was created. The two extreme levels represented no behavior problems and a score of three or more on the Behavioral and Emotional Problems Scale. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more behavior problems") and the bottom third ("fewer behavior problems").

Other evidence suggestive of validity includes whether the Behavioral and Emotional Problems Scale for boys (Youth Report) differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Behavioral and Emotional Problems for Boys for the top and bottom thirds of Youth report of Behavioral and Emotional Problems for Boys.

Boys who reported more behavior problems also had parents who reported more behavior problems for their sons.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Parent report of Behavior and Emotional Problems for Boys by Youth Report Behavior and Emotional Problems for Boys (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.06 (.09)	2.38 (.06)	11.59***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Youth report Behavioral and Emotional Problems for Boys.

Boys who reported more behavior problems also reported more instances of substance use and delinquency.

Means, standard errors, and t-values are reported in the following table.

Means Scores for Youth Behavior Problems by Youth Report of Behavioral and Emotional Problems for Boys (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Youth Report of Substance Use (range: 0–3)	0.40 (.04)	1.05 (.03)	12.17***
Youth Report of Delinquency (range: 0–10)	0.59 (.08)	2.12 (.05)	15.74***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Behavioral and Emotional Problems for Boys for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Means, standard errors, and t-values are reported in the table below.

There is not strong evidence that youth report of behavior problems for boys differed by poverty level.

Mean Scores for Parent Report of Behavioral and Emotional Problems for Boys by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Behavioral and Emotional Problems for Boys (Youth report)	2.21 (.07)	2.06 (.06)	-1.69,

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Achenbach, T. & Edelbrock, C. (1987). The manual for the Youth Self-report and profile. Burlington, VT: University of Vermont.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Duncan, G. J., Brooks-Gunn, J. & Klebanov, P. K. (1994). Economic deprivation in early childhood deprivation. Child Development, 65, 296-318.

Ehrle, J. L. & Moore, K. A. (1999). Benchmarking Measures of Child and Family Well-Being in the NSAF. Draft at Child Trends, Inc.

Farmer, E. M. Z. (1995). Extremity of externalizing behavior and young adult outcomes. Journal of Child Psychology and Allied Disciplines, 36, 617-632.

Rothbaum, F., Rosen, K. S., Pott, M., Beatty, M. (1995). Early parent-child relationships and later problem behavior: A longitudinal study. Merrill-Palmer Quarterly, 41, 133-151.

Tremblay, R. E., Massey, B., Perron, D., & Leblanc, M. (1992). Early disruptive behavior, poor school achievement, delinquent behaviors, and delinquent personality: Longitudinal analyses. Journal of Consulting and Clinical Psychology, 60, 64-72.

Adolescent Outcome Measures

Behavioral and Emotional Problems Scale for Girls–Parent Report

Description & Relevance:

Behavior problems have been linked to many family and neighborhood characteristics. For example, youth in families with supportive parent-youth relationships (Rothbaum, Rosen, Pott, & Beatty, 1995) are less likely to exhibit behavior problems. Research also suggests that living in a neighborhood with more risks results in a higher incidence of behavior problems such as throwing tantrums (Duncan, Brooks-Gunn, & Klebanov, 1994). Youth behavior problems are predictive of some adult outcomes such as academic achievement, and employment (Farmer, 1995; Tremblay, Massey, Perron, & Leblanc, 1992).

Source of Items:

The NLSY 97's measure of behavioral and emotional problems utilizes a set of six items developed as an indicator of children's mental health for the National Health Interview Survey (NHIS). The items have also been used in the National Survey of America's Families (NSAF), though in the NSAF all items were asked on both genders (Ehrle & Moore, 1999). The items for the behavioral and emotional problems (NHIS and NSAF) indicator were selected from the Child Behavior Checklist (CBCL), a standardized questionnaire used to obtain parent's ratings of their children's problems and competencies (Achenbach & Edelbrock, 1987). Items selected for the NHIS were identified as providing the best discrimination between demographically similar children who were referred or not referred for mental health services. Of the six items in the NLSY 97 questionnaire, two items (1. lies or cheats and 2. unhappy, sad, or depressed) were asked for both boys and girls. Two items (1. school work is poor and 2. has trouble sleeping) were asked only for girls. Two items (1. Can't concentrate or pay attention for long and 2. Doesn't get along with other kids) were asked only for boys. This procedure was also utilized in the NHIS.

Parallel items were asked of the female youth.

Items and Response Categories:

1. *[Youth] 's school work is poor.*
2. *[Youth] has trouble sleeping.*
3. *[Youth] lies or cheats.*
4. *[Youth] is unhappy, sad or depressed.*

The responses were measured on a 3-point scale:

Not True	Sometimes True	Often True
0	1	2

Scale Creation

The Behavioral and Emotional Problems Scale for Girls was created by summing the responses to the four items for total possible score of 8 points. Higher scores indicate more numerous and/or frequent behavior problems.

Variable Name: FP_PYFBEHS

Age of Youth: 12–16 years

Frequencies:

Behavioral and Emotional Problems Scale for Girls–Parent report
(higher scores indicate more behavior problems)

FP_PYFBEHS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	586	36.9	586	36.9
1	417	26.3	1003	63.2
2	294	18.5	1297	81.7
3	164	10.3	1461	92.0
4	75	4.7	1536	96.7
5	33	2.1	1569	98.8
6	11	0.7	1580	99.5
7	7	0.4	1587	99.9
8	1	0.1	1588	100.0

Psychometric Assessment:

Data Quality

Scores on the Behavioral and Emotional Problems Scale for Girls were obtained for respondents who answered at least three of the four items. Respondents who answered only three of the four items were assigned a weighted score based on the 8-point scale (i.e., rawscore * (4/4-missing)). Respondents who answered fewer than three items were coded as missing on the Behavioral and Emotional Problems Scale for Girls. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Behavioral and Emotional Problems Scale for Girls (Parent report)	1588	2	1.31	1.41

Internal Consistency/Reliability

Cronbach's alpha for these responses are considered somewhat low, but adequate in terms of consistency/reliability. Internal consistency as measured by Cronbach's

alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Behavioral and Emotional Problems Scale for Girls (Parent report)	.57

Validity

We examined construct validity, and other evidence suggestive of validity of parent report of behavior problems with girls. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the adolescent outcome variable is significantly associated with the *same* adolescent outcome construct measured differently.

Predictive validity is apparent when the adolescent outcome variable is significantly associated with *other* adolescent outcome variables, and/or youth behavior as expected based on theory or previous research. Our conceptual framework is that the family process variables will be predictive of the adolescent outcome variables.

For purposes of checking construct validity, a three-level variable for the Behavioral and Emotional Problems Scale for Girls (Parent report) was created. The two extreme levels represent no behavior problems and a score of three or more on the Behavioral and Emotional Problems Scale. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more behavior problems") and the bottom third ("fewer behavior problems).

Other evidence suggestive of validity includes whether the Behavioral and Emotional Problems Scale for Girls (Parent Report) for girls differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Behavioral and Emotional Problems for Girls for the top and bottom thirds of Parent report of Behavioral and Emotional Problems for Girls.

Parents who reported "more behavior problems" for the girls had daughters who reported more behavior problems.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Youth Report of Behavior and Emotional Problems for Girls by Parent Report Behavior and Emotional Problems for Girls (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	1.44 (.06)	3.09 (.09)	15.51***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Parent report of Behavioral and Emotional Problems for Girls.

Parents who reported more behavior problems for girls had youth who reported higher instances of substance use and delinquency.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Youth Behavior Problems by Parent Report Behavior and Emotional Problems for Girls (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Youth Report of Substance Use (range: 0–3)	0.42 (.04)	0.96 (.05)	8.56***
Youth Report of Delinquency (range: 0–10)	0.50 (.04)	1.16 (.06)	7.85***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Behavioral and Emotional Problems for Girls for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Parents of youth living in families with incomes greater than 200% of the poverty line reported fewer behavior problems for girls than parents of families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Parent Report of Behavioral and Emotional Problems for Girls by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Behavioral and Emotional Problems for Girls (Parent report)	1.55 (.08)	1.07 (.07)	-4.69***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Achenbach, T. & Edelbrock, C. (1987). The manual for the Youth Self-report and profile. Burlington, VT: University of Vermont.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Duncan, G. J., Brooks-Gunn, J. & Klbanov, P. K. (1994). Economic deprivation in early childhood deprivation. Child Development, 65, 296-318.

Ehrle, J. L. & Moore, K. A. (1999). Benchmarking Measures of Child and Family Well-Being in the NSAF. Draft at Child Trends, Inc.

Farmer, E. M. Z. (1995). Extremity of externalizing behavior and young adult outcomes. Journal of Child Psychology and Allied Disciplines, 36, 617-632.

Rothbaum, F., Rosen, K. S., Pott, M., Beatty, M. (1995). Early parent-child relationships and later problem behavior: A longitudinal study. Merrill-Palmer Quarterly, 41, 133-151.

Tremblay, R. E., Massey, B., Perron, D., & Leblanc, M. (1992). Early disruptive behavior, poor school achievement, delinquent behaviors, and delinquent personality: Longitudinal analyses. Journal of Consulting and Clinical Psychology, 60, 64-72.

Adolescent Outcome Measures

Behavioral and Emotional Problems Scale for Boys–Parent Report

Description & Relevance:

Behavior problems have been linked to many family and neighborhood characteristics. For example, youth in families with supportive parent-youth relationships (Rothbaum, Rosen, Pott, & Beatty, 1995) are less likely to exhibit behavior problems. Research also suggests that living in a neighborhood with more risks results in a higher incidence of behavior problems such as throwing tantrums (Duncan, Brooks-Gunn, & Klebanov, 1994). Youth behavior problems are predictive of some adult outcomes such as academic achievement, and employment (Farmer, 1995; Tremblay, Massey, Perron, & Leblanc, 1992).

Source of Items:

The NLSY 97's measure of behavioral and emotional problems utilizes a set of six items developed as an indicator of children's mental health for the National Health Interview Survey (NHIS). The items have also been used in the National Survey of America's Families (NSAF), though in the NSAF the items were asked of both genders (Ehrle & Moore, 1999). The items for the behavioral and emotional problems (NHIS and NSAF) indicator were selected from the Child Behavior Checklist (CBCL), a standardized questionnaire used to obtain parent's ratings of their children's problems and competencies (Achenbach & Edelbrock, 1987). Items selected for the NHIS were identified as providing the best discrimination between demographically similar children who were referred or not referred for mental health services. Of the six items in the NLSY 97 questionnaire, two items (1. lies or cheats and 2. unhappy, sad, or depressed) were asked for both boys and girls. Two items (1. school work is poor and 2. has trouble sleeping) were asked only for girls. Two items (1. Can't concentrate or pay attention for long and 2. Doesn't get along with other kids) were asked only for boys. This procedure was also utilized in the NHIS.

Parallel items were asked of the male youth.

Items and Response Categories:

1. *[Youth] can't concentrate or pay attention for long.*
2. *[Youth] doesn't get along with other kids.*
3. *[Youth] lies or cheats.*
4. *[Youth] is unhappy, sad or depressed.*

The responses were measured on a 3 point scale:

Not True	Sometimes True	Often True
0	1	2

Scale Creation

The Behavioral and Emotional Problems Scale for Boys (Parent report) was created by summing the responses to the four items for a total possible score of 8 points. Higher scores indicate more numerous and/or frequent behavior problems.

Variable Name: FP_PYMBEHS

Age of Youth: 12–16 years

Frequencies:

Behavioral and Emotional Problems Scale for Boys- Parent report
(higher scores indicate more behavior problems)

FP_PYMBEHS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	466	27.1	466	27.1
1	427	24.8	893	51.9
2	321	18.7	1214	70.6
3	231	13.4	1445	84.1
4	155	9.0	1600	93.1
5	77	4.5	1677	97.6
6	24	1.4	1701	99.0
7	10	0.6	1711	99.5
8	8	0.5	1719	100.0

Psychometric Assessment:

Data Quality

Scores on the Behavioral and Emotional Problems Scale for Boys (Parent report) were obtained for respondents who answered at least three of the four items. Respondents who answered only three of the four items were assigned a weighted score based on the 8-point scale (i.e., rawscore * (4/4-missing)). Respondents who answered fewer than three items were coded as missing on The Behavioral and Emotional Problems Scale for Boys (Parent report). However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Behavioral and Emotional Problems Scale for Boys (Parent report)	1719	3	1.77	1.65

Internal Consistency/Reliability

Cronbach's alpha for these scales are considered moderate adequate in terms of consistency/reliability. Internal consistency as measured by Cronbach's alpha indicates that the items hang together well in a given administration. Cronbach's alpha is the preferred measure of internal/consistency/reliability (Carmine & Zeller, 1985).

Measure	Alpha
Behavioral and Emotional Problems Scale for Boys (Parent report)	.65

Validity

We examined construct validity, predictive validity, and other evidence suggestive of validity for parent reports of behavior and emotional problems in boys. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the adolescent outcome variable is significantly associated with the *same* adolescent outcome construct measured differently.

Predictive validity is apparent when the adolescent outcome variable is significantly associated with *other* adolescent outcome variables, and/or youth behavior as expected based on theory or previous research. Our conceptual framework is that the family process variables will be predictive of the adolescent outcome variables.

For purposes of checking construct validity, a three-level variable for the Behavioral and Emotional Problems Scale for Boys (Parent report) was created. The two extreme levels represent no behavior problems and a score of three or more on the Behavioral and Emotional Problems Scale. Each level represents approximately one-third of the sample. Data shown below are for the top third ("more behavior problems") and the bottom third ("fewer behavior problems).

Other evidence suggestive of validity includes whether the Behavioral and Emotional Problems Scale for Boys (Parent Report) differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Behavioral and Emotional Problems for Boys for the top and bottom thirds of Parent report of Behavioral and Emotional Problems for Boys.

Parents who reported more behavior problems for boys had sons who reported more behavior problems.

Means, standard errors, and t-values are reported in the table below.

Mean Scores on Youth report of Behavioral and Emotional Problems Scale for Boys by Parent report of Behavioral and Emotional Problems Scale for Boys (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	1.56 (.06)	2.83 (.07)	13.40***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom thirds of Parent report of Behavioral and Emotional Problems for Boys.

Parents who reported more behavior problems for boys had sons who reported higher instances of substance use and delinquency.

Means, standard errors, and t-values are reported in the table below.

Mean Scores on Youth report Youth Behavior Problems by Parent report of Behavioral and Emotional Problems Scale for Boys (more vs. fewer behavior problems)

	Fewer Behavior Problems	More Behavior Problems	t-value
Youth Report of Substance Use (range: 0–3)	0.50 (.04)	0.79 (.04)	5.07***
Youth Report of Delinquency (range: 0–10)	0.92 (.06)	1.79 (.06)	8.22***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Parent report of Behavioral and Emotional Problems for Boys for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Parents of youth living in families with incomes greater than 200% of the poverty line reported fewer behavior problems for boys than parents of families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Parent Report of Behavioral and Emotional Problems for Boys by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Behavioral and Emotional Problems Scale for Boys (Parent report) (range: 0–8)	2.00 (.09)	1.61 (.07)	-3.42***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Achenbach, T. & Edelbrock, C. (1987). The manual for the Youth Self-report and profile. Burlington, VT: University of Vermont.

Carmine, E.G., & Zeller, R.A. (1985). Reliability and validity assessment. In J.L. Sullivan (Ed.), Quantitative applications in the social sciences. Sage: Beverly Hills, CA.

Duncan, G. J., Brooks-Gunn, J. & Klebanov, P. K. (1994). Economic deprivation in early childhood deprivation. Child Development, 65, 296-318.

Ehrle, J. L. & Moore, K. A. (1999). Benchmarking Measures of Child and Family Well-Being in the NSAF. Draft at Child Trends, Inc.

Farmer, E. M. Z. (1995). Extremity of externalizing behavior and young adult outcomes. Journal of Child Psychology and Allied Disciplines, 36, 617-632.

Rothbaum, F., Rosen, K. S., Pott, M., Beatty, M. (1995). Early parent-child relationships and later problem behavior: A longitudinal study. Merrill-Palmer Quarterly, 41, 133-151.

Tremblay, R. E., Massey, B., Perron, D., & Leblanc, M. (1992). Early disruptive behavior, poor school achievement, delinquent behaviors, and delinquent personality: Longitudinal analyses. Journal of Consulting and Clinical Psychology, 60, 64-72.

Adolescent Outcome Measures

Delinquency Index–Youth Report

Description & Relevance:

Delinquency has been linked to many family and neighborhood characteristics. Youth in families with higher monitoring parents (Weintraub & Gold, 1991) are less likely to exhibit delinquent behaviors. Research also suggests that living in a neighborhood with more risks results in a higher incidence of behavior problems such as destroying property (Duncan, Brooks-Gunn, & Klebanov, 1994). Youth delinquency is predictive of some adult outcomes such as educational attainment, economic status, and job instability (Hagan, 1991; Newcombe & Bentler, 1988; Sampson & Laub, 1990).

Source of Items:

The Delinquency Index items were modified from items developed by Del Elliot to measure delinquency and criminality in the National Youth Survey. The National Youth Survey (NYS) is a longitudinal study from 1983-1989 of 1,725 respondents aged 18-24 years old. The data from NYS have been used to compare rates of generalized spousal assault and victimization reported in a crime context with rates of marital assault and victimization reported in a family violence context.

Items and Response Categories

1. *Have you ever run away, that is, left home and stayed away at least overnight without your parent's prior knowledge or permission?*
2. *Have you ever carried a hand gun? When we say hand gun, we mean any firearm other than a rifle or shotgun.*
3. *Have you ever belonged to a gang?*
4. *Have you ever purposely damaged or destroyed property that did not belong to you?*
5. *Have you ever stolen something from a store or something that did not belong to you worth less than 50 dollars?*
6. *Have you ever stolen something from a store, person or house, or something that did not belong to you worth 50 dollars or more including stealing a car?*
7. *Have you ever committed other property crimes such as fencing, receiving, possessing or selling stolen property, or cheated someone by selling them something that was worthless or worth much less than what you said it was?*
8. *Have you ever attacked someone with the idea of seriously hurting them or have a situation end up in a serious fight or assault of some kind?*
9. *Have you ever sold or helped sell marijuana (pot, grass), hashish (hash) or other hard drugs such as heroin, cocaine or LSD?*
10. *Have you ever been arrested by the police or taken into custody for an illegal or delinquent offense (do not include arrests for minor traffic violations)?*

0=No, 1=Yes

Index Creation

The Delinquency Index score was created by summing the responses from the number of delinquent/criminal acts the youths identified having ever done, for a possible total of 10. Higher scores indicate more incidents of delinquency.

Variable Name: FP_YYCRIMI

Age of Youth: 12–16 years

Frequency:

Index of youth report of delinquency
(higher scores indicate more delinquency)

FP_YYCRIMI	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	4211	46.8	4211	46.8
1	1892	21.0	6103	67.8
2	1165	12.9	7268	80.7
3	689	7.6	7957	88.3
4	406	4.5	8363	92.9
5	251	2.8	8614	95.6
6	157	1.7	8771	97.4
7	96	1.1	8867	98.4
8	72	0.8	8939	99.2
9	50	0.6	8989	99.8
10	18	0.2	9007	100.0

Data Quality

Scores on the Delinquency Index were obtained for respondents who answered at least eight of the ten items. Respondents who answered at least eight of the ten questions were assigned a weighted score based on the 10-point scale (i.e., rawscore * (10/10-missing)). Respondents who answered fewer than eight items were coded as missing. However, little missing data occurred.

Measure	N	N missing	Mean	SD
Youth Report of Delinquency	9007	15	1.33	1.84

Internal Consistency/Reliability

Not applicable. (This is an index rather than a scale. That is, it is not assumed that the frequency of delinquent act should be correlated (i.e., internally consistent) with the frequency of another delinquent act.)

Validity

We examined construct validity, and other evidence suggestive of validity of the Delinquency Index. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the adolescent outcome variable is significantly associated with the *same* adolescent outcome construct measured differently.

Predictive validity is apparent when the adolescent outcome variable is significantly associated with *other* adolescent outcome variables, and/or youth behavior as expected based on theory or previous research. Our conceptual framework is that the family process variables will be predictive of the adolescent outcome variables.

For purposes of checking construct validity, three-level variables for the Delinquency Index were created. The lowest level represents zero instances of delinquency, the highest level represents 7 or more instances of delinquency. Data shown below are for the top and bottom levels.

Other evidence suggestive of validity includes whether delinquency differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

No other measure of delinquency was collected in this cohort, therefore construct validity can not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Youth report of Delinquency.

Youth who reported more instances of delinquency, also reported more behavior problems.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for Youth Behavior Problems by Youth report of Delinquency (More vs. Fewer instances)

	More Instances of Delinquency	Fewer Instances of Delinquency	t-value
Youth Report of Substance Use (range: 0–3)	0.52 (.01)	2.59 (.06)	32.92***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	1.70 (.04)	4.02 (.60)	3.83***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	1.65 (.04)	3.26 (.33)	4.86***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	0.99 (1.39)	1.11 (0.04)	-0.09
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.56 (.66)	1.49 (.06)	0.09

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Delinquency for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

Youth living in families with incomes greater than 200% of the poverty line reported fewer instances of delinquency than youth in families with incomes less than 50% of the poverty line.

Means, standard errors, and t-values are reported in the following table.

Mean Scores for Youth Report of Delinquency by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Youth Report of Delinquency (range: 0–10)	1.07 (.02)	0.97 (.03)	-2.69**

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Duncan, G. J., Brooks-Gunn, J. & Klebanov, P. K. (1994). Economic deprivation in early childhood deprivation. Child Development, 65, 296-318.

Hagan, J. (1991). Destiny and drift: Subcultural preferences, status attainments, and the risks and rewards of youth. American Sociological Review, 56, 567-582.

Newcombe, M. D. & Bentler, P. M. (1988). Consequences of Adolescent Drug Use: Impact on the lives of young adults. Newbury Park: Sage.

Sampson, R. & Laub, J. (1990). Stability and change in crime and deviance over the life course: The salience of adult social bonds. American Sociological Review, 55, 609-627.

Weintraub, K. J. & Gold, M. (1991). Monitoring and delinquency. Criminal Behaviour and Mental Health, 1, 268-281.

Adolescent Outcome Measures

Substance Use Index–Youth Report

Description & Relevance:

Substance use has been linked to many family and neighborhood characteristics. Youth in families with supportive parent-youth relationships (Coombs & Paulson, 1988) are less likely to use drugs. Research also suggests that living in a neighborhood with more risks results in a higher incidence of behavior problems such as destroying property or throwing tantrums (Duncan, Brooks-Gunn, & Klebanov, 1994). Youth substance use is predictive of some adult outcomes such as educational attainment, economic status, and job instability (Hagan, 1991; Newcombe & Bentler, 1988; Sampson & Laub, 1990).

Source of Items:

The items used in the NLSY 97 questionnaire were modified from National Survey of Family and Households (NSFH-2). These questions were asked of youth ages 10 – 17 in the NSFH.

Items and Response Categories

1. *Have you ever smoked a cigarette?*
2. *Have you ever had a drink of an alcoholic beverage? (By a drink we mean a can or bottle of beer, a glass of wine, a mixed drink, or a shot of liquor. Do not include childhood sips that you might have had from an older person's drink.)*
3. *Have you ever used marijuana, for example: grass or pot, in your lifetime?*

0=No, 1=Yes

Index Creation

The Substance Use Index score was created by summing number of substances the youth reported having ever tried for a possible total score of 3. Higher scores indicate more instances of substance use.

Variable Name: FP_YYSUBSI

Age of Youth: 12–16 years

Frequencies

Index of youth report of substance use
(higher scores indicate higher instances of substance use)

FP_YYSUBSI	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	4188	46.5	4188	46.5
1	1897	21.1	6085	67.6
2	1453	16.1	7538	83.8
3	1461	16.2	8999	100.0

Psychometric Assessment:

Data Quality

Scores on the Substance Use Index were obtained only for respondents who answered all three items. Respondents who answered fewer than three items were coded as missing on the Substance Use Index. However, very little missing data occurred.

Measure	N	N missing	Mean	SD
Youth Report of Substance Use	8999	23	1.02	1.13

Internal Consistency/Reliability

Not applicable. (This is an index rather than a scale. That is, it is not assumed that the frequency of one type of substance use should be correlated (i.e., internally consistent) with the frequency of another type of substance use.)

Validity

We examined construct validity, and other evidence suggestive of validity of the Substance Use Index. The data presented are cross-sectional because longitudinal data are not yet available.

Construct validity is demonstrated when the adolescent outcome variable is significantly associated with the *same* adolescent outcome construct measured differently.

Predictive validity is apparent when the adolescent outcome variable is significantly associated with *other* adolescent outcome variables, and/or youth behavior as expected based on theory or previous research. Our conceptual framework is that the family process variables will be predictive of the adolescent outcome variables.

For purposes of checking construct validity, three-level variables for the Substance Use Index were created. The lowest level represents zero instances of substance use, the highest level represents 3 or more instances of substance use. Each level represents approximately one-third of the sample. Data shown below are for the top

third ("more instances of substance use") and the bottom third ("fewer instances of substance use").

Other evidence suggestive of validity includes whether substance use differs significantly for families with incomes less than 50% of the poverty line compared to families with incomes greater than 200% of the poverty line.

Construct Validity

No other measure of substance use was collected in this cohort, therefore construct validity can not be assessed.

Predictive Validity

T-tests compared mean scores, adjusted for youth's age and gender, on the family process and adolescent outcome variables listed in the tables for the top and bottom levels of Youth report of Substance Use.

Youth who reported more instances of substance use, also reported more instances of delinquency and more behavior problems. Youth who reported more instances of substance use, also had parents that reported more youth behavior problems.

Means, standard errors, and t-values are reported in the following table.

Mean Score for Youth Behavior Problems by Substance Use Index (More vs. Fewer Instances)

	More Instances of Substance Use	Fewer Instances of Substance Use	t-value
Youth Report of Delinquency (range: 0–10)	0.49 (.02)	3.46 (.04)	60.47***
Behavioral and Emotional Problems for Girls (Youth report) (range: 0–8)	1.73 (.04)	3.52 (.10)	16.89***
Behavioral and Emotional Problems for Boys (Youth report) (range: 0–8)	1.76 (.04)	3.00 (.09)	12.13***
Behavioral and Emotional Problems for Girls (Parent report) (range: 0–8)	1.11 (.04)	2.13 (.14)	7.02***
Behavioral and Emotional Problems for Boys (Parent report) (range: 0–8)	1.61 (.05)	2.51 (.15)	5.63***

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

Other Evidence Suggestive of Validity

T-tests compared mean scores, adjusted for youth's age and gender, on Youth report of Substance Use for two poverty groups, less than 50% of the poverty level and greater than 200% of the poverty level.

There is no evidence to suggest that substance use differed by poverty level.

Means, standard errors, and t-values are reported in the table below.

Mean Scores for the Substance Use Index by Poverty Level (<50% vs. ≥ 200%)

	<50% of Poverty Level	>200% of Poverty Level	t-value
Youth Report of Substance Use (range: 0–3)	0.79 (.03)	0.74 (.03)	-1.04

p-levels are ≤.10=,; ≤.05=*; ≤.01=**; ≤.001=***

References:

Coombs, R. H., & Paulson, M. J. (1988). Contrasting family patterns of adolescent drug users and non-users. Journal of Chemical Dependency and Treatment, 1, 59-72.

Duncan, G. J., Brooks-Gunn, J. & Klebanov, P. K. (1994). Economic deprivation in early childhood deprivation. Child Development, 65, 296-318.

Hagan, J. (1991). Destiny and drift: Subcultural preferences, status attainments, and the risks and rewards of youth. American Sociological Review, 56, 567-582.

Newcombe, M. D. & Bentler, P. M. (1988). Consequences of Adolescent Drug Use: Impact on the lives of young adults. Newbury Park: Sage.

Sampson, R. & Laub, J. (1990). Stability and change in crime and deviance over the life course: The salience of adult social bonds. American Sociological Review, 55, 609-627.