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ABSTRACT

Previous research has demonstrated an association between locus of control in adolescence and a successful transition to adulthood. Having an external locus of control has been implicated as an important factor in adolescent behaviors such as teenage pregnancy and delinquency, and has been found to be negatively related to school achievement. This study was conducted to assess factors predicting adolescent locus of control, including parent-adolescent communication, the adolescent's satisfaction with social support, and life stress. Possible effects of locus of control on other key variables which may affect issues related to adolescent development were also examined, including school achievement, antisocial influences, and depression. Self-report questionnaires were completed by 1,264 ninth graders. The findings revealed that mother-adolescent communication and life stress had both direct and indirect effects on locus of control. Locus of control was found to be critical only in predicting depression and grade point average, not antisocial influences. Other variables in combination with locus of control determined grade point average, antisocial influences, and depression. All but one of the interactions tested were significant. Locus of control interacted with life stress to affect antisocial influences, while mother-adolescent communication interacted with life stress to predict depression. (Author/NB)

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# FACTORS DETERMINING ADOLESCENT LOCUS OF CONTROL

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## ABSTRACT

PREVIOUS RESEARCH HAS DEMONSTRATED AN ASSOCIATION BETWEEN LOCUS OF CONTROL IN ADOLESCENCE AND A SUCCESSFUL TRANSITION TO ADULTHOOD. HAVING AN EXTERNAL LOCUS OF CONTROL HAS BEEN IMPLICATED AS AN IMPORTANT FACTOR IN ADOLESCENT BEHAVIORS SUCH AS TEEN PREGNANCY AND DELINQUENCY, AND IS NEGATIVELY RELATED TO SCHOOL ACHIEVEMENT. THE PRESENT STUDY ASSESSES FACTORS PREDICTING ADOLESCENT LOCUS OF CONTROL USING HIERARCHICAL MULTIPLE REGRESSION ANALYSES. FACTORS INCLUDE: 1) INDICES OF THE TEEN-PARENT RELATIONSHIP, AND 2) A MEASURE OF ENVIRONMENTAL LIFE STRESS. ADDITIONALLY, FACTORS AFFECTED BY LOCUS OF CONTROL ARE EXAMINED.

MATERNAL-TEEN COMMUNICATION AND LIFE STRESS HAVE BOTH DIRECT AND INDIRECT EFFECTS ON LOCUS OF CONTROL. LOCUS OF CONTROL IS CRITICAL ONLY IN PREDICTING DEPRESSION AND GPA, NOT ANTISOCIAL INFLUENCES.

OTHER VARIABLES IN COMBINATION WITH LOCUS OF CONTROL DETERMINE GPA, ANTISOCIAL INFLUENCES, AND DEPRESSION. FOR EXAMPLE, SATISFACTION WITH SOCIAL SUPPORT DETERMINES ANTISOCIAL INFLUENCES AND DEPRESSION, BUT HAS NO IMPACT ON GPA. FURTHERMORE, LIFE STRESS DIRECTLY AFFECTS GPA AND ANTISOCIAL INFLUENCES. MATERNAL AND PATERNAL COMMUNICATION

(EXAMINED SEPARATELY) ARE ONLY IMPORTANT IN PREDICTING ANTISOCIAL INFLUENCES.

ALL BUT ONE OF THE INTERACTIONS TESTED ARE SIGNIFICANT. LOCUS OF CONTROL INTERACTS WITH LIFE STRESS TO AFFECT ANTISOCIAL INFLUENCES, AND DEPRESSION IS PREDICTED BY THE INTERACTION OF MATERNAL-TEEN COMMUNICATION AND LIFE STRESS. HOWEVER, THE INTERACTION OF MATERNAL-TEEN COMMUNICATION AND SOCIAL SUPPORT IS NOT CRITICAL TO PREDICTING GPA.

### AIMS OF THE STUDY

THE PRESENT STUDY HAS SEVERAL PURPOSES:

1. SINCE LOCUS OF CONTROL HAS BEEN IMPLICATED AS BEING IMPORTANT TO ADOLESCENT ADJUSTMENT, PRELIMINARY DATA WERE GATHERED TO EXAMINE THE RELATIONSHIP BETWEEN FACTORS PRESUMABLY AFFECTING LOCUS OF CONTROL. THESE FACTORS INCLUDE: 1) TEEN-PARENT COMMUNICATION, 2) TEEN'S SATISFACTION WITH SOCIAL SUPPORT, AND 3) LIFE STRESS.
2. TO EXPLORE THE POSSIBLE EFFECTS OF LOCUS OF CONTROL ON OTHER KEY VARIABLES WHICH MAY IMPACT ON ISSUES RELATED TO ADOLESCENT

DEVELOPMENT, NAMELY, SCHOOL ACHIEVEMENT,  
ANTISOCIAL INFLUENCES, AND DEPRESSION.

3. A MULTIPLE REGRESSION APPROACH IS UTILIZED TO EXAMINE THE EFFECTS OF KEY VARIABLES AND THEIR INTERACTIONS ON THE CRITERIA CITED ABOVE.

### SUBJECTS

THE PARTICIPANTS WERE 1,264 ADOLESCENTS (613 MALE, 651 FEMALE) ENROLLED IN THE NINTH GRADE OF SEVEN HIGH SCHOOLS WITHIN THE METROPOLITAN DETROIT AREA. DATA COLLECTION PROCEDURES OCCURRED JANUARY - JUNE 1990. STUDENTS RANGED IN AGE FROM 13 - 17 YEARS (MEAN AGE=14.9). RACIAL COMPOSITION OF THE SAMPLE WAS: 60% BLACK, 32% WHITE, AND 8% OTHER (ASIAN, INDIAN, ETC.). ALL LEVELS OF SOCIOECONOMIC STATUS WERE SAMPLED.

### MEASURES

ALL MEASURES WERE EMBEDDED WITHIN A LARGER SELF-REPORT QUESTIONNAIRE. RESPONDENTS COMPLETED SURVEYS DURING A 45-MINUTE SESSION IN THEIR REGULAR CLASSROOMS. TO ADDRESS POTENTIAL PROBLEMS ENCOUNTERED WITH ILLITERACY, ALL QUESTIONS WERE READ ALOUD TO THE STUDENTS WHILE THEY FOLLOWED ALONG ON

THEIR RESPECTIVE SURVEYS. THE RELEVANT MEASURES ARE DESCRIBED BELOW:

**SATISFACTION WITH SOCIAL SUPPORT: TEENS'**

SATISFACTION WITH SOCIAL SUPPORT FROM SIGNIFICANT OTHERS WAS ASSESSED USING SATISFACTION ITEMS FROM THE *ARIZONA SOCIAL SUPPORT INTERVIEW SCHEDULE (ASSIS)* (BARRERA, 1981; SANDLER AND BARRERA, 1984).

**LIFE STRESS:** LIFE STRESS WAS INDEXED BY A 31-ITEM MODIFIED VERSION OF THE *ADOLESCENT LIFE CHANGING EVENT SCALE* (YEAWORTH ET AL., 1980). TEENS WERE ASKED TO INDICATE WHICH STRESSFUL EVENTS (E.G., FAILING A SUBJECT, INVOLVEMENT WITH DRUGS OR ALCOHOL, OR PARENTAL DIVORCE) HAD OCCURRED IN THE PAST YEAR.

**PARENT-TEEN COMMUNICATION:** ADOLESCENT PERCEPTIONS OF THE QUALITY OF THEIR RELATIONSHIPS WITH BOTH MOTHER AND FATHER WERE ASSESSED USING A 20-ITEM MODIFIED VERSION OF THE *ADOLESCENT FORM OF THE FAMILY COMMUNICATION INVENTORY* (BIENVENU, 1969).

**DEPRESSION:** TEEN SELF-REPORT OF DEPRESSIVE SYMPTOMOLOGY WAS MEASURED BY SEVEN ITEMS SELECTED FROM THE *CENTER FOR EPIDEMIOLOGIC STUDIES DEPRESSION SCALE (CES-D)* BASED ON THE HIGHEST FACTOR LOADINGS.

SCHOOL ACHIEVEMENT: INDEXED BY THE FIRST SEMESTER'S *GRADE POINT AVERAGE (GPA)* DERIVED FROM SELF-REPORT.

LOCUS OF CONTROL: AN 11-ITEM MODIFIED VERSION OF THE *NOWICKI-STRICKLAND LOCUS OF CONTROL SCALE FOR CHILDREN* WAS ADMINISTERED (NOWICKI AND STRICKLAND, 1973). THE ITEMS, WRITTEN AT A FIFTH GRADE READABILITY LEVEL, WERE ANSWERED "YES" OR "NO" AND THEN SUMMED TO FORM A CONTINUUM DESCRIBING INTERNAL-EXTERNAL LOCUS OF CONTROL.

ANTI-SOCIAL INFLUENCES: DEVIANCE WAS ASSESSED USING THREE ITEMS ADAPTED FROM OSCAMP AND MINDICK (1985). THESE ITEMS ASSESS PEER MODELS OF DEVIANT BEHAVIOR BY ASKING ABOUT THE *NUMBER OF FRIENDS WHO SMOKE CIGARETTES, HAVE TRIED MARIJUANA, AND HAVE TRIED OTHER DRUGS SUCH AS LSD OR COCAINE*. RESPONSES TO THE FOUR-POINT SCALE ITEMS WERE SUMMED.

## RESULTS

PEARSON CORRELATION COEFFICIENTS WERE COMPUTED TO EXAMINE THE RELATIONSHIPS BETWEEN THE PREDICTOR VARIABLES AND THE FOUR CRITERION VARIABLES, I.E., LOCUS

OF CONTROL, DEPRESSION, GPA, AND ANTISOCIAL INFLUENCES. INTERCORRELATIONS AMONG VARIABLES ARE SHOWN IN TABLE 1. MULTIPLE REGRESSION ANALYSIS RESULTS ARE DISPLAYED IN TABLES 2-5.

NOTABLY, TABLE 2 INDICATES THAT MATERNAL- AND PATERNAL-TEEN COMMUNICATION, LIFE STRESS, AND SATISFACTION WITH SOCIAL SUPPORT HAVE SIGNIFICANT DIRECT EFFECTS ON ADOLESCENT LOCUS OF CONTROL, WHILE THE INTERACTION OF MATERNAL-TEEN COMMUNICATION AND LIFE STRESS HAS AN INDIRECT SIGNIFICANT EFFECT ON ADOLESCENT LOCUS OF CONTROL. AS SEEN IN TABLE 3, PATERNAL-TEEN COMMUNICATION, SATISFACTION WITH SOCIAL SUPPORT, AND LOCUS OF CONTROL HAVE SIGNIFICANT DIRECT EFFECTS ON ADOLESCENT DEPRESSION. ALSO, THE INTERACTION OF MATERNAL-TEEN COMMUNICATION AND LIFE STRESS INDIRECTLY AFFECTS ADOLESCENT DEPRESSION.

AS SEEN IN TABLE 4, THE CRITICAL PREDICTORS OF GPA APPEAR TO BE LIFE STRESS AND LOCUS OF CONTROL. FINALLY, TABLE 5 REVEALS THAT MATERNAL- AND PATERNAL-TEEN COMMUNICATION, LIFE STRESS, AND SATISFACTION WITH SOCIAL SUPPORT ARE CRITICAL IN EXPLAINING ADOLESCENT ANTISOCIAL INFLUENCES, WHILE LOCUS OF CONTROL IS LESS IMPORTANT IN PREDICTING ADOLESCENT ANTISOCIAL INFLUENCES.



TABLE 1  
INTERCORRELATIONS AMONG PREDICTORS

	1	2	3	4	5	6	7	8	9	10	11	12
1 Teen-Parent Communication	1.00	.80	.80	.23	-.22	.17	-.37	.44	-.27	-.53	-.50	-.34
2 Maternal-Teen Communication		1.00	.27	.21	-.24	.16	-.31	.41	-.24	.61	-.60	-.23
3 Paternal-Teen Communication			1.00	.17	-.13	.12	-.29	.30	-.19	.25	-.20	-.24
4 Satisfaction with Social Support				1.00	-.26	.07	-.37	.27	-.06	.88	-.29	-.31
5 Life Stress					1.00	-.29	.32	-.25	.38	.31	.88	.82
6 School Achievement						1.00	-.17	.38	-.30	-.13	-.29	-.39
7 Depression							1.00	-.38	.27	.44	.38	.43
8 Locus of Control								1.00	-.25	-.38	-.35	-.68
9 Antisocial Influences									1.00	.13	.41	.40
10 Maternal-Teen Communication X Satisfaction with Social Support										1.00	-.50	-.41
11 Maternal-Teen Communication X Life Stress											1.00	-.82
12 Locus of Control X Life Stress												1.00

TABLE 2  
PREDICTORS OF LOCUS OF CONTROL

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	BETA
MATERNAL-TEEN COMMUNICATION	.41
PATERNAL-TEEN COMMUNICATION	.17
LIFE STRESS	-.32
SATISFACTION WITH SOCIAL SUPPORT	.14
MATERNAL-TEEN COMMUNICATION X LIFE STRESS	.25

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$R^2 = .24$ , MULT  $R = .49$

**TABLE 3**  
**PREDICTORS OF DEPRESSION**

	BETA
MATERNAL-TEEN COMMUNICATION	-.003
PATERNAL-TEEN COMMUNICATION	.14
LIFE STRESS	-.01
SATISFACTION WITH SOCIAL SUPPORT	-.24
LOCUS OF CONTROL	-.19
MATERNAL-TEEN COMMUNICATION X LIFE STRESS	.22

$R^2 = .29$ , MULT  $R = .53$

TABLE 4  
PREDICTORS OF GPA

	BETA
MATERNAL-TEEN COMMUNICATION	.02
PATERNAL-TEEN COMMUNICATION	-.01
LIFE STRESS	-.23
SATISFACTION WITH SOCIAL SUPPORT	.08
LOCUS OF CONTROL	.31
MATERNAL-TEEN COMMUNICATION X SATISFACTION WITH SOCIAL SUPPORT	-.02

$R^2 = .17$ , MULT  $R = .41$

**TABLE 5**  
**PREDICTORS OF ANTISOCIAL INFLUENCES**

	BETA
MATERNAL-TEEN COMMUNICATION	.11
PATERNAL-TEEN COMMUNICATION	.10
LIFE STRESS	.27
SATISFACTION WITH SOCIAL SUPPORT	.10
LOCUS OF CONTROL	-.03
LOCUS OF CONTROL X LIFE STRESS	.12

$R^2 = .20$ , MULT  $R = .45$

## CONCLUSIONS

IN EXAMINING THE EFFECTS OF KEY VARIABLES ON LOCUS OF CONTROL, RESULTS INDICATE THAT MATERNAL-TEEN COMMUNICATION AND DEGREE OF LIFE STRESS HAVE SIGNIFICANT DIRECT EFFECTS ON ADOLESCENT LOCUS OF CONTROL. ADDITIONALLY, MATERNAL-TEEN COMMUNICATION AND LIFE STRESS INTERACT TO HAVE A SIGNIFICANT EFFECT ON LOCUS OF CONTROL. THIS IS OVER AND ABOVE OTHER TESTED MAIN EFFECTS, INCLUDING PATERNAL-TEEN COMMUNICATION AND SATISFACTION WITH SOCIAL SUPPORT.

RESULTS SUGGEST THAT EXPERIENCING MINIMAL STRESSORS IN CONJUNCTION WITH HAVING A POSITIVE MATERNAL RELATIONSHIP MAY FOSTER AN INTERNAL LOCUS OF CONTROL. IN TURN, INTERNAL LOCUS OF CONTROL IS ASSOCIATED WITH NONDEPRESSIVE FEELINGS, HIGHER SCHOOL ACHIEVEMENT, AND HAVING FEWER FRIENDS WHO ENGAGE IN ANTISOCIAL BEHAVIORS. POSITIVE PATERNAL-TEEN COMMUNICATION, A PERCEPTION OF A SUPPORTIVE ENVIRONMENT, AND AN INTERNAL LOCUS OF CONTROL ARE ALSO RELATED TO AN ABSENCE OF DEPRESSION.

IN SUM, RELATIONSHIP AND ENVIRONMENTAL VARIABLES SUCH AS HAVING A POSITIVE PARENTAL-TEEN RELATIONSHIP, FEELING SATISFIED WITH SOCIAL SUPPORT, AND EXPERIENCING LITTLE ENVIRONMENTAL STRESS PROMOTE AN INTERNAL LOCUS OF CONTROL. THIS IN TURN, MAY FACILITATE POSITIVE ADOLESCENT ADJUSTMENT AS

MEASURED BY ANTISOCIAL INFLUENCES, SCHOOL  
ACHIEVEMENT, AND DEPRESSION.

Reference List for "Factors Determining Adolescent Locus of Control," by K. F. Kopera-Frye, P. D. Jones and C. S. Dixon

- Barrera, M. (1981). Social support in the adjustment of pregnant adolescents: Assessment Issues. In B. H. Gottlieb (Ed.), Social networks and social support (pp. 69-96). Beverly Hills, CA: Sage.
- Bienvendu, M. J. (1969). Measurement of parent-adolescent communication. The Family Coordinator, 18, 117-121.
- Nowicki, S. & Strickland, B. R. (1973). A locus of control scale for children. Journal of Consulting and Clinical Psychology, 40, 148-154.
- Oscamp, S. & Mindick, B. (1983). Personality and attitudinal barriers to contraception. In D. Byrne & W. A. Fisher (Eds.), Adolescents, sex and contraception (pp. 65-107). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Radloff, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385-401.
- Sandler, I. N. & Barrera, M. (1984). Toward a multimethod approach to assessing the effects of social support. American Journal of Community Psychology, 12, 37-52.
- Yeaworth, R., York, J., Hussey, M., Ingle, M. & Goodwin, T. (1980). The development of an adolescent life-change event scale. Adolescence, 15, 90-98.