

Source: Stiffman, A., R., Hadley-Ives, E., Elze, D., Johnson, S., & Doré, P. (1999). Impact of environment on adolescent mental health and behavior: Structural equation modeling. *American Journal of Orthopsychiatry*, 69(1), 73-86.

Previous research has shown that a relationship exists between high-risk neighborhood environment and the development of mental health problems in children and adolescents. While the casual observer may conclude that the actual rates of poverty, violence, and other conditions associated with high-risk neighborhoods will have a direct effect on mental health problems, the authors show that the relationship between neighborhood environment and mental health is very complex.

Stiffman et al. distinguish between objective ("real") environment and perceived (psychological) environment, and consider the mitigating role played by family and peers (environmental support) in the development of mental health problems in such adolescents.

Demographics of adolescents interviewed (N=792)

Adolescents (age range 14-18 yrs):

Mean age	15.3
Caucasian	13%
African-American	86%
Male	43%
Female	57%

Head of household or living situation:

Family headed by mother:	42%
Mother and other adults	11%
Two-parent families	14%

In foster or group care	14%
With non-parent relatives	12%

Employment of primary financial support provider:

On welfare	13%
Semi-skilled	39%
Blue collar	16%
White collar	20%
Professional	9%

Findings indicated that objective environment did not have a direct influence on mental health. Rather, the way an adolescent perceived his or her environment was directly related to the development of mental health problems.

Mental health problems were likely to develop when the youths perceived their neighborhoods negatively (i.e., as "deteriorating"). Yet adolescents receiving support from their families and who associated with non-misbehaving peers reported fewer negative perceptions of their neighborhoods than did youths who did not receive very much environmental support.

Youths with internalizing mental health problems benefited from family and peer support to a greater extent than did youths with externalizing problems. However, chronic exposure to violence increased the chances that youths would perceive their neighborhoods negatively; in which case family and peer support were less likely to have a positive influence on mental health.

The Youth Services Project (YSP) was funded by the National Institute of Mental Health (NIMH) in 1994. The study involved 792 adolescents in urban St. Louis who were recruited from various child-serving agencies (i.e., health, juvenile justice, child welfare, and education systems). The youths were between the ages of 14-18 (see sidebar for demographics).

Many of the adolescents interviewed had mental health or behavioral health problems: 12-16% met diagnostic criteria, and 22-58% reported three or more symptoms. Two-thirds of the youths reported that they had engaged in some form of violent behavior within the prior six months. Mental health status was determined through youth self-reports using the Diagnostic Interview Schedule for Children-Revised (DISC-R), and DSM-IV criteria.

(continued)

Perceived environment*Responses to queries about the neighborhood composition:*

Category	"some"	"a lot"
Drug dealing	29%	49%
Shootings	36%	37%
Vacant bldgs	34%	35%
On welfare	36%	42%
Murders		15%
	34%	
Homelessness	30%	13%
Prostitution	18%	15%

Percent of adolescents reporting direct exposure to violence (within prior six months):

No exposure	7.5%
Knew someone beaten or killed	40%
Themselves attacked or beaten	25%
Suicide attempt of friend or family member	26%
Physical fights occurring in the home	28%
Family member hurt/ killed	19%
Themselves hurt or threatened	21%
Seen someone seriously hurt or killed	56%
Themselves sexually assaulted or raped	13%

Perceived environment was measured by combining information gleaned from the DISC-R interviews with youths' ratings of their neighborhoods. Emphasis was placed on how the youths "saw" their neighborhood. For example, youths were asked whether there were "a lot" of deteriorated buildings, or only "some" (see sidebar for perceived environment).

A picture of the *objective environment* was captured by combining 1990 census data with addresses of adolescents interviewed, and with police district records. Interestingly, there was good concordance between youths' self-reports and police records. That is, children reporting higher incidences of violent behavior in their communities did indeed live in high-crime areas.

Environmental support was approximated by adolescent self-reports about their family, peer groups, and structured activities (e.g., through clubs and organizations). Analysis showed that only family environment and peer behavior had a significant, mitigating effect on youths' perceptions of their neighborhood environment. The authors note that the measurement of environmental support was the "weakest portion" of the model.

Overall, limitations of the study revolve around the sample size. All respondents were from public service sectors in one Midwestern city and may not be representative of urban or inner-city adolescents. The fact that youths were asked to report on their own violent behavior or illegal activities is also problematic. Furthermore, it is not known whether youth involved in violent behavior would be more or less prone to notice violence around them.

However, the study is commendable for its use of structural equation modeling to examine relationships between each type of environment and mental health status from several different angles. For example, perceived environment and mental health status were each tested as dependent variables because it is not clear whether perception influences mental health or mental health influences perception.

In conclusion, the authors note three significant insights for further research and treatment: 1) the youths' perceptions of their environments are based in reality; 2) it is important to understand the way that youths perceive their neighborhoods in order to treat them for mental health and behavioral problems, and 3) environmental support plays a key role in mitigating the negative impact of high-risk neighborhoods. "The next logical research step would be the development, implementation, and evaluation of a theory-based intervention simultaneously targeting community environment, youths' perceptions, and environmental support" (p. 85).