#### Dietary Supplements and Behavior (violence, mood)

**Benton, D. "Vitamin and mineral intake and human behaviour."** In: Smith, Andrew P. (Ed); Jones, Dylan M. (Ed). (1992). Handbook of human performance, Vol. 1: The physical environment; Vol. 2: Health and performance; Vol. 3: State and trait. (pp. 25-47). San Diego, CA, US: Academic Press, Inc. 1117 pp.ISBN 0-12-650354-0.

(from the chapter) [examines] the association between the intake of vitamins and minerals and psychological functioning / [argues] that there is a growing evidence to support the assertion that, for some of the population, a sub-clinical deficiency of micro-nutrients exists to the extent that psychological efficiency is disrupted / [reviews] the psychological concomitants of clinical and experimentally-induced deficiencies multi-vitamin and mineral supplementation [supplementation of children, evaluation studies examining supplementation and intelligence, supplementation and the behavioural problems of children] / vitamin status and adult behaviour [the elderly, mood] (PsycINFO Database Record (c) 2000 APA, all rights reserved)

## Benton D, Haller J, Fordy J. Vitamin supplementation for 1 year improves mood. Neuropsychobiology 1995;32(2):98-105

The possibility that the taking of vitamin supplements may influence mood was explored. One hundred and twenty-nine young healthy adults took either 10 times the recommended daily dose of 9 vitamins, or a placebo, under a double-blind procedure, for a year. Males taking the vitamins differed from those taking the placebo in that they reported themselves as feeling more 'agreeable' after 12 months. After 12 months the mood of females taking the vitamin supplement was significantly improved in that they felt more 'agreeable', more composed and reported better mental health. These changes in mood after a year occurred even though the blood status of 9 vitamins reached a plateau after 3 months: this improvement in mood was associated in particular with improved riboflavin and pyridoxine status. In females baseline thiamin status was associated with poor mood and an improvement in thiamin status after 3 months was associated with improved mood. Publication Types: Clinical trial Randomized controlled trial

Boggs, Unabelle R; Scheaf, Allen; Santoro, David; Ritzman, Robert. The effect of nutrient supplements on the biological and psychological characteristics of low IQ, preschool children. Journal of Orthomolecular Psychiatry. Vol 14(2), 1985, 97-127.

Studied whether measures of developmental impairment or behavioral disorders could be improved by the use of multinutritional supplements individually prescribed to 9 preschool children enrolled in Headstart programs. Ss had a high degree of developmental risk and a Slossen Intelligence Test IQ below 80. After being administered a battery of physiological and psychological tests, half the Ss received nutrient supplements in powdered form and the other half received placebo for 1 mo. During the 2nd half of the experiment, conditions for Ss were reversed. Six Ss remained in full participation throughout the study. An analysis of variance (ANOVA) showed that of the nutrients administered, zinc was the only one that was proven to have been deficient and beneficial. However, overall the supplements had a beneficial effect on the behavioral disturbance and intellectual development of Ss. (112 ref) (PsycINFO Database Record (c) 2000 APA, all rights reserved). Form/Content Type Empirical Study.

Carroll D, Ring C, Suter M, Willemsen G. The effects of an oral multivitamin combination with calcium, magnesium, and zinc on psychological well-being in healthy young male volunteers: a double-blind placebo-controlled trial. Psychopharmacology (Berl) 2000 Jun;150(2):220-5.

RATIONALE: Vitamin and mineral supplements may be associated with improved psychological status. OBJECTIVE: The present study tested the effects of a multivitamin and mineral supplement (Berocca) on psychological well-being. METHODS: In a double-blind randomised-control trial, 80 healthy male volunteers were assigned to either Berocca or placebo. Questionnaires measuring psychological state were completed and a blood sample taken to

determine plasma zinc concentration on day 1 (pre-treatment) and again on day 28 (post-treatment), following 28 days of treatments, which were administered at a dosage of one tablet daily. At the end of the study, the acceptability of the treatment and participants' awareness of treatment condition were assessed, as was habitual dietary behaviour. RESULTS: Relative to placebo, treatment with Berocca was associated with consistent and statistically significant reductions in anxiety and perceived stress. Participants in the Berocca group also tended to rate themselves as less tired and better able to concentrate following treatment. In addition, participants registered more somatic symptoms following placebo than following Berocca. These effects cannot be attributed to differences in the acceptability of the two treatments or to participants guessing what treatment they received. CONCLUSION: These findings demonstrate that Berocca significantly reduces anxiety and perceived stress. Publication Types: Clinical trial Randomized controlled trial.

**Doraz, Walter E. "Diet and deliquency: The grounding of four leading theories in human physiology and sociology."** In: Essman, Walter B. (Ed). (1987). Nutrients and brain function. (pp. 219-230). Basel, Switzerland: S. Karger AG. vi, 252 pp. ISBN 3-8055-4566-5. (from the chapter) review four theoretical reasons why the diet policy changes may have impacted behavior so future research may individually test each of the pausible theories / suggests methods in which they may be empirically tested in correctional institutions / human physiology theory of brain function / hypoglycemia / low blood sugar / food allergies / vitamin deficiencies / placebo effects (PsycINFO Database Record (c) 2000 APA, all rights reserved) Psychology: Professional & Research. Publication Type Chapter.

Gans DA, Harper AE. Thiamin status of incarcerated and nonincarcerated adolescent males: dietary intake and thiamin pyrophosphate response. Am J Clin Nutr 1991 Jun;53(6):1471-5

Comment in:

Am J Clin Nutr. 1992 Jan;55(1):139-40

We measured thiamin status in 137 incarcerated and 42 nonincarcerated adolescent males by use of both dietary intake data and a standard biochemical assay, thiamin pyrophosphate (TPP) response. Average thiamin intake of the total group was greater than 120% of the age-specific recommended dietary allowance (RDA). Ninety-two percent of incarcerated subjects and 93% of nonincarcerated subjects were consuming greater than or equal to 70% of RDA. Although average daily thiamin intake of nonincarcerated subjects was significantly higher than that of incarcerated subjects, both groups appeared to be at minimal risk for marginal thiamin status. Comparison of TPP response values indicated that there was no significant difference between groups. However, approximately 24% of the total population appeared to have less than adequate RBC thiamin on the basis of current standards for TPP response. Neither dietary intake nor reported previous alcohol intake was correlated with TPP response. These discrepant findings raise questions about the usefulness of the TPP response as the sole indicator of marginal thiamin status.

**Gray GE. Diet, crime and delinquency: a critique**. Nutr-Rev. 1986 May; 44 Suppl: 89-94 1986.

#### National Centers for Disease Control and Prevention. Middle School Risk Behavior 1995 Survey Results. 1996

ABSTRACT: The Youth Risk Behavior Survey (YRBS) Middle School Questionnaire, produced by the National Centers for Disease Control and Prevention, was administered for the first time in North Carolina in 1995. The survey monitored high-priority health-risk behaviors, including: (1) weapons and violence; (2) suicide-related behaviors; (3) vehicle safety; (4) tobacco, alcohol, and

other drug use; and (5) nutrition and physical exercise. A total of 2,227 students from 53 public schools were surveyed. Results within the personal safety category showed that weapon use is predominantly a male activity, with 20 percent carrying weapons to school and 10 percent reporting having been threatened with or injured by weapons at school. Over 25 percent of students had considered suicide and 10 percent had attempted suicide. Forty percent had ridden with someone who had been drinking alcohol, with the percentage increasing by grade. The majority did not wear helmets while riding bicycles. Concerning drug use, findings showed that 53 percent had smoked cigarettes. High smoking rates were found among minorities, males, and older students. Over half had drunk alcohol and 17 percent had used marijuana, with the percentage increasing by grade. Results concerning personal health revealed that about 25 percent consider themselves overweight but 40 percent are dieting, most of whom are females. Over 80 percent reported exercising or playing sports in the previous week in addition to attending physical education classes. Almost 80 percent reported AIDS education at school; 60 percent had discussed AIDS or HIV with parents or other family adults. (Contains 25 references.) (KDFB)

#### Schauss Alexander G. Research Links Nutrition to Behavior Disorders.

School Safety; p20-28 Win 1985

ABSTRACT: Social and medical research studies are examined that show the dramatic effects of biochemical and nutritional factors on antisocial behavior. They include studies of cobalt levels in hair samples of violent and nonviolent criminals, effects of diet on chronic delinquents, and effects of vitamin/mineral supplements on behaviorally disordered children. (CT)

Schlebusch L, Bosch BA, Polglase G, Kleinschmidt I, Pillay BJ, Cassimjee MH. A double-blind, placebo-controlled, double-centre study of the effects of an oral multivitamin-mineral combination on stress. S Afr Med J 2000 Dec;90(12):1216-23. OBJECTIVES: To assess the effects of a multivitamin-mineral combination (Berocca Calmag) treatment on stress in a large sample of South Africans. METHOD: This was a multiple-dose, double-blind, placebo-controlled, double-centre study. Patients were drawn from two centres with high stress levels (Durban and Johannesburg), each study recruiting the same number of patients (150) from 1,000 adults with predetermined high stress levels. Dropouts from the study were replaced. Study medication safety was evaluated by recording adverse events. On day 1 (baseline) patients were subjected to an individual in-depth assessment that included a biographical questionnaire, four psychological scales, and collateral information from close relatives. On day 30 (end of the study period) or at the latest 7 days after the last planned medication intake, the assessment was repeated for purposes of pre- and post-response comparison. RESULTS: Thirty-three patients dropped out and were replaced, leaving 300 patients who completed the study--151 in group 1 (multivitamin-mineral combination), and 149 in group 2 (placebo). There were no statistically significant differences between the two groups regarding demographics and baseline stress scores at study entry. Both groups improved between baseline and the end of treatment as assessed. The degree of improvement was statistically significant and greatest in group 1 for all psychometric instruments, with this beneficial effect increasing over the course of the day. Subgroup analyses for age (18-44 and 45-65 years), gender and ethnicity showed no general effect on the overall study outcome. CONCLUSIONS: The multivitamin-mineral combination tested is well tolerated and can be used as part of a treatment programme for stress-related symptoms at the recommended dose. Publication Types: Clinical trial Multicenter study Randomized controlled trial.

Schoenthaler, S. Amos, S. Doraz, W. Kelly, M.A. Muedeking, G. Wakefield, J. The effect of randomized vitamin-mineral supplementation on violent and non-violent antisocial behavior among incarcerated juveniles. J-nutr-environ-med. Dec 1997. v. 7 (4) p. 343-352. In a randomized controlled double-blind trial, the effects of vitamin-mineral supplementation on violence and other serious antisocial behavior were studied for 3 months on 62 confined delinquents aged 13 to 17 years. A significant difference between 32 active and 30 placebo subjects was found for violent and non-violent antisocial behavior. The net difference in rule

infractions between the active and placebo groups in violence was 28% (95% confidence interval 15-41%). This direction and magnitude of effect were seen with both violent and non-violent rule violations. Twenty-six habitually violent subjects donated pre- and post-intervention blood samples. Among 10 subjects who maintained their normal or low blood concentrations of vitamins throughout the trial, there was no marked change in violence (i.e. 39 acts during baseline and 37 during intervention). In contrast, the 16 subjects who corrected their low blood vitamin concentrations during intervention produced 131 violent acts during baseline and 11 during intervention. The correction of low blood vitamin concentrations with vitamin-mineral supplements improves brain function and significantly reduces violence among delinquents confined in correctional facilities.

Schoenthaler, S. Amos, S. Doraz, W. Kelly, M.A. Muedeking, G. Wakefield, J. The effect of randomized vitamin-mineral supplementation on violent and non-violent antisocial behavior among incarcerated juveniles. J-nutr-environ-med. Dec 1997. v. 7 (4) p. 343-352. In a randomized controlled double-blind trial, the effects of vitamin-mineral supplementation on violence and other serious antisocial behavior were studied for 3 months on 62 confined delinquents aged 13 to 17 years. A significant difference between 32 active and 30 placebo subjects was found for violent and non-violent antisocial behavior. The net difference in rule infractions between the active and placebo groups in violence was 28% (95% confidence interval 15-41%). This direction and magnitude of effect were seen with both violent and non-violent rule violations. Twenty-six habitually violent subjects donated pre- and post-intervention blood samples. Among 10 subjects who maintained their normal or low blood concentrations of vitamins throughout the trial, there was no marked change in violence (i.e. 39 acts during baseline and 37 during intervention). In contrast, the 16 subjects who corrected their low blood vitamin concentrations during intervention produced 131 violent acts during baseline and 11 during intervention. The correction of low blood vitamin concentrations with vitamin-mineral supplements improves brain function and significantly reduces violence among delinquents confined in correctional facilities.

Schoenthaler SJ. Bier ID. The effect of vitamin-mineral supplementation on juvenile delinquency among American schoolchildren: a randomized, double-blind placebo-controlled trial. Journal of Alternative & Complementary Medicine 2000 Feb;6(1):7-17. CONTEXT: Numerous studies conducted in juvenile correctional institutions have reported that violence and serious antisocial behavior have been cut almost in half after implementing nutrient-dense diets that are consistent with the World Health Organization's guidelines for fats, sugar, starches, and protein ratios. Two controlled trials tested whether the cause of the behavioral improvements was psychological or biological in nature by comparing the behavior of offenders who either received placebos or vitamin-mineral supplements designed to provide the micronutrient equivalent of a well-balanced diet. These randomized trials reported that institutionalized offenders, aged 13 to 17 years or 18 to 26 years, when given active tablets produced about 40% less violent and other antisocial behavior than the placebo controls. However, generalization could not be made to typical schoolchildren without a controlled trial examining violence and antisocial behavior in public sc! hools. OBJECTIVES: To determine if schoolchildren, aged 6 to 12 years, who are given low

dose vitamin-mineral tablets will produce significantly less violence and antisocial behavior in school than classmates who are given placebos. DESIGN: A stratified randomized, double-blind, placebo-controlled trial with pretest and post-test measures of antisocial behavior on school property. SETTINGS AND SUBJECTS: Two "working class," primarily Hispanic elementary schools in Phoenix, Arizona. Approximately half of the potential schoolchildren participated, i.e., 468 students aged 6 to 12 years. INTERVENTION: Daily vitamin-mineral supplementation at 50% of the U.S. recommended daily allowance (RDA) for 4 months versus placebo. The supplement was designed to raise vitamin-mineral intake up to the levels currently recommended by the National Academy of Sciences for children aged 6 to 11 years. Randomized controlled trials. Treatment outcome.

Schlebusch L, Bosch BA, Polglase G, Kleinschmidt I, Pillay BJ, Cassimjee MH. A double-blind, placebo-controlled, double-centre study of the effects of an oral multivitamin-mineral combination on stress. S Afr Med J 2000 Dec;90(12):1216-23

OBJECTIVES: To assess the effects of a multivitamin-mineral combination (Berocca Calmag) treatment on stress in a large sample of South Africans. METHOD: This was a multiple-dose, double-blind, placebo-controlled, double-centre study. Patients were drawn from two centres with high stress levels (Durban and Johannesburg), each study recruiting the same number of patients (150) from 1,000 adults with predetermined high stress levels. Dropouts from the study were replaced. Study medication safety was evaluated by recording adverse events. On day 1 (baseline) patients were subjected to an individual in-depth assessment that included a biographical questionnaire, four psychological scales, and collateral information from close relatives. On day 30 (end of the study period) or at the latest 7 days after the last planned medication intake, the assessment was repeated for purposes of pre- and post-response comparison. RESULTS: Thirty-three patients dropped out and were replaced, leaving 300 patients who completed the study--151 in group 1 (multivitamin-mineral combination), and 149 in group 2 (placebo). There were no statistically significant differences between the two groups regarding demographics and baseline stress scores at study entry. Both groups improved between baseline and the end of treatment as assessed. The degree of improvement was statistically significant and greatest in group 1 for all psychometric instruments, with this beneficial effect increasing over the course of the day. Subgroup analyses for age (18-44 and 45-65 years), gender and ethnicity showed no general effect on the overall study outcome. CONCLUSIONS: The multivitamin-mineral combination tested is well tolerated and can be used as part of a treatment programme for stress-related symptoms at the recommended dose. Clinical trial Multicenter study Randomized controlled trial

**Schuitemaker, G. E. Nutrition and behaviour**. Journal of Orthomolecular Medicine. Vol 3(2), American Assoc. of Orthomolecular Medicine. 1988, 57-60.

Reviews studies by D. Benton and G. Roberts (1988) on the effect of vitamin and mineral supplements on the intelligence of school children and by S. J. Schoenthaler et al (see record 1988-12155-001) on the influence of nutrition on behavior. (PsycINFO Database Record (c) 2000 APA, all rights reserved).

# Smith WB. Commentary on Schoenthaler et al: vitamin and mineral supplements--is the methodology sufficient to support the conclusions? J Altern Complement Med 2000 Feb;6(1):31-5

Comment on:

J Altern Complement Med. 2000 Feb;6(1):19-29

J Altern Complement Med. 2000 Feb;6(1):7-17

### Story M, Neumark-Sztainer D. Diet and adolescent behavior: is there a relationship?

Adolesc Med 1998 Jun;9(2):283-98, vi

Behavioral problems such as hyperactivity, learning disabilities, mental illness, aggressive and antisocial behavior, and juvenile delinquency have been purportedly linked to the potential influence of foods or nutrients. This article examines the scientific evidence of the relationship between food and behavior in children and adolescents. It highlights the implications for practitioners important to consider in the assessment of the relationship between diet and behavior.

#### Swensson, Marjorie. Nutrition and Its Effects on Learning.

43p.; M.S. Practicum, Nova University. 1990

ABSTRACT: A 12-week practicum intervention, designed to improve the classroom performance of 17 elementary school students experiencing learning or behavior problems by offering the students nutrition instruction and improving nutritional practices in the students' homes, was implemented and evaluated. Students were requied to agree to: (1) eat a nutritious breakfast each morning; (2) limit sugar intake; (3) eat nutritious snacks; (4) eat more fruits, vegetables, whole-grain and protein-rich foods than previously; and (5) attend nutrition education classes two or three times a week. Parents were encouraged to participate in the project. Nutrition classes provided discussions of films on nutrition topics, tasting parties, cooking experiences, parent education sessions, and instruction on reading labels. Effectiveness of the intervention was evaluated by observations of classroom behavior and pre- and posttesting with the Wide Range Achievement Test (WRAT) and a General Nutrition Quiz. Classroom observations revealed that 50 percent of the students had improved in behavior and were enjoying increased academic success. Most children who altered their eating habits scored higher on the posttest WRAT than those who had not. All participants learned the value of proper nutrition.

U.S. Congress 102<sup>nd</sup>. Meeting the Goals: Collaborating for Youth. Hearing Before the Committee on Labor and Human Resources, United States Senate. One Hundred Second Congress, First Session. On Examining the Need To Provide Comprehensive Services To Youth To Help the Nation Meet the Education Goals of School Readiness, Dropout Prevention, Improved School Achievement, and Drug and Violence Free Schools and To Examine What the Federal Government Can Do To Support and Expand Social Service Programs for Youth. U.S. Government Printing Office, Superintendent of Documents, Congressional Sales Office, Washington, DC 20402. 1991

ABSTRACT: A hearing before the U.S. Senate Committee on Labor and Human Resources examined the need for provision of comprehensive services to youth. Topics discussed included: (1) the provision of coordinated social services to students and families in schools; (2) school readiness; (3) dropout prevention; (4) improved school achievement; (5) drug- and violence-free schools; and (6) child health and nutrition. Statements were made by Chairman Kennedy and other senators, and by spokespersons for several social service programs. Programs included: (1) programs in New Jersey that bring social services into the schools; (2) programs in Arkansas that serve children and students; (3) the Dunbar Project, which provides an array of services to six schools in Baltimore, Maryland; (4) Joining Forces, a national effort to join students with appropriate social services; (5) New Beginnings, which provides integrated services for children and families in San Diego, California; (6) programs to assist students in Boston, Massachusetts; (7) YouthNet, a youth development collaboration established by 12 agencies in Kansas City, Missouri; and (8) the Family Learning Center, a rural, comprehensive, secondary education program for teenage parents and their children and extended families in Leslie, Michigan.

Waggoner, Jan E. Adolescents in Crisis: Implementing Carnegie Recommendations in Middle Level Teacher Education by Collaborating with Community Service Agencies. Paper presented at the Annual Meeting of the Association of Teacher Educators, 75th, Detroit, MI, February 19-22, 1995. Carnegie Council on Adolescent Development; Illinois. 1995. ABSTRACT: According to the Carnegie Council on Adolescent Development, young adolescents are felt to be far more at risk for self-destructive behaviors than ever before, and middle grades schools are failing to meet students' needs. As part of a plan for restructuring middle grades education, Illinois has created a middle school endorsement added to elementary or secondary teacher certification and has created a model for integrating health, education, and social services into middle level education. One of the university courses designed to meet requirements for the middle school endorsement involves inservice and preservice teachers in learning about basic issues in eight developmentally appropriate areas and embedding those issues within each subject of the regular curriculum. The eight areas include self-esteem, peer relationships, gangs and violence, loss (including death and dying), nutrition, sexual activity, alcohol/drugs/tobacco, and communicable diseases. For each topic, a representative from a community or social service agency presents critical information, and teams of class members

devise interdisciplinary units. Appendices to this paper list groups involved in the restructuring process, health and social indicators for early adolescents, health data about students in grades 5 through 8, and a table of contents from a guide to the middle school endorsement course described. Contains five references.

Walker SP, Grantham Mcgregor SM, Powell CA, Chang SM. Effects of growth restriction in early childhood on growth, IQ, and cognition at age 11 to 12 years and the benefits of nutritional supplementation and psychosocial stimulation. J-Pediatr. 2000 Jul; 137(1): 36-41 2000.

OBJECTIVES: (1) To determine whether benefits to growth and cognition remain after intervention in growth-restricted children who received psychosocial stimulation and nutritional supplementation in early childhood. (2) To investigate the extent of the differences in IQ and cognition at age 11 to 12 years between growth-restricted and non-growth-restricted children. STUDY DESIGN: Growth-restricted and non-growth-restricted children were identified at age 9 to 24 months, at which time the growth-restricted children participated in a 2-year randomized trial of nutritional supplementation and psychosocial stimulation. Eight years after the interventions ended, the children's growth, IQ, and cognitive functions were measured. RESULTS: There were no significant benefits from supplementation to growth or cognition. Children who had received stimulation had higher scores on the Weschler Intelligence Scales for Children-Revised full-scale (IO) and verbal scale and tests of vocabulary and reasoning (all P <.05). The growth-restricted children had significantly lower scores than the non-growthrestricted children on 10 of 11 cognitive tests. CONCLUSIONS: Psychosocial stimulation had small but significant long-term benefits on cognition in growth-restricted children. Growthrestricted children had significantly poorer performance than non-growth-restricted children on a wide range of cognitive tests, supporting the conclusion that growth restriction has long-term functional consequences.

Weissberg Roger P, Gullota, Thomas P, Hampton Robert L, Ryan Bruce A, Adams Gerald R. Enhancing Children's Wellness. Healthy Children 2010. Issues in Children's and Families' Lives, Volume 8. The John & Kelly Hartman Series. Sage Publications Inc., 2455 Teller Road, Thousand Oaks, CA 91320. 1997

ABSTRACT: This volume consists of 10 chapters which emphasize the latest research and theories about family, school, and community prevention programs and health promotion programs to improve the health status of children during the next decade. The goal of the volume is to influence the nation's policies and practices regarding children's health by raising awareness about effective and theoretically based prevention programs and strategies. The chapters address issues of problem behaviors coupled with substance abuse, delinquency, and school failure; drug abuse prevention; unwanted pregnancy; AIDS; violent and aggressive behavior; depression and suicide; and childhood injury. After a foreword by Seymour B. Sarason, the 10 articles are: (1) "Introduction and Overview: Let's Make 'Healthy Children 2010' a National Priority!" (Weissberg and Kuster); (2) "The Prevalence of Problem Behaviors: Implications for Programs" (Dryfoos); (3) "School-Based Drug Abuse Prevention Strategies: From Research to Policy and Practice" (Dusenbury and Falco); (4) "Preventing High-Risk Sexual Behavior, Sexually Transmitted Diseases, and Pregnancy Among Adolescents" (Sagrestano and Paikoff); (5) "Violence Prevention for the 21st Century" (Murray, Guerra, and Williams); (6) "Prevention of Depression" (Compas, Connor, and Wadsworth); (7) "Prevention of Youth Suicide" (Kalafat); (8) "Promoting Healthy Dietary Behaviors" (Perry, Story, and Lytle); (9) "Prevention and Control of Injuries" (Tuchfarber, Zins, and Jason); and (10) "Academic Performance and School Success: Sources and Consequences" (Hawkins). (SD)

Wilson, Amani. Violence and Traumatic Stress in Urban Schools. Occasional Paper Series: Volume 10, Number 3. Regional Laboratory for Educational Improvement of the Northeast and Islands, 300 Brickstone Square, Suite 950, Andover, MA 01810. 1995.

ABSTRACT: The magnitude of crime, violence, victimization, and associated disruption in the urban schools of the United States severely impairs the educational process and the normal psychological development of many students. The problems of urban schools result from the problems of the larger community, but the community also holds the solutions to violence and traumatic stress. Increased cooperation between the school and the community can be implemented through a variety of channels. Community and parent involvement in various forms is critical to violence prevention. Professional development for teachers can prepare them to address violence and the consequences of urban stress with their students while creating an educational environment that fosters conflict resolution. Any approach to the complex phenomenon of urban violence, victimization, and traumatic stress must be systemic. Enhancing psychological services, ensuring adequate nutrition, and providing a safe and caring environment will contribute to closing the achievement gap and relieving the effects of urban problems.