

NIH Public Access

Author Manuscript

J Community Health. Author manuscript; available in PMC 2009 December 1.

Published in final edited form as:

J Community Health. 2008 December; 33(6): 425-433. doi:10.1007/s10900-008-9117-5.

Relationships Between Alcohol-Related informal Social Control, Parental Monitoring and Adolescent Problem Behaviors Among Racially Diverse Urban Youth

Jayne A. Fulkerson, PhD,

School of Nursing, University of Minnesota, 5-160 Weaver-Densford Hall, 308 Harvard Street SE, Minneapolis, MN, 55455-0342, Fulke001@umn.edu

Keryn E. Pasch, PhD,

Division of Epidemiology & Community Health, School of Public Health, University of Minnesota, 1300 South Second Street, Suite 300, Minneapolis, MN, 55454

Cheryl L. Perry, PhD, and

Michael & Susan Dell Center for Advancement of Healthy Living, School of Public Health, University of Texas, Austin Regional Campus, Austin, TX, 78701

Kelli Komro, PhD

Epidemiology & Health Policy Research and Institute for Child Health Policy, University of Florida, College of Medicine, Gainesville, FL, 32610

Abstract

The purpose of the present study is to investigate the relationships between alcohol-related informal social control and parental monitoring on alcohol use, behavior and intentions; violent behavior; and delinquent behavior in a racially diverse population of young urban adolescents. Baseline surveys were administered to 6th grade male and female students in 61 urban Chicago schools as part of Project Northland Chicago, a group randomized trial for the prevention/reduction of substance use. A subset of their parents (n=3034) was also surveyed regarding alcohol use, violence, and delinquency and related issues. Structural equation modeling was used to assess relationships between alcohol-related informal social control (as measured by parental perceptions of neighborhood action regarding youth drinking) and parental monitoring (as reported by parents), and three adolescent outcomes (alcohol use, behaviors and intentions; violent behavior; and delinquent behavior; as reported by teens). Associations between alcohol-related informal social control and parental monitoring were positive and significant (p < .001). Direct paths from parental monitoring to all three adolescent outcomes were negative and statistically significant (alcohol use, behaviors and intentions, p<.001; violent behavior, p<.001; and delinquent behavior, p<.001). Alcohol-related informal social control was not significantly associated with adolescent outcomes. Efforts to engage parents to be more active in monitoring adolescents' activities may be related to lower levels of underage drinking, violence and delinquency among both female and male urban youth. Neighborhood norms and action against teenage drinking may be too distal to adolescent outcomes to be directly associated.

Keywords

Parental monitoring; Alcohol-related informal social control; Adolescent behaviors; Alcohol; Delinquency; Violence

Introduction

Adolescent problem behaviors such as alcohol use, violence, and delinquency are influenced by peers, family, and the surrounding physical and social environments such as characteristics of neighborhoods and schools [1]. The social environment can be very influential in the development of problem behaviors through normative expectations, opportunities, and barriers [2]; however, particularly among young adolescents, parental monitoring can play a critical role as well. This interplay of families and the neighborhood environment may be particularly relevant in poorer and densely-populated neighborhoods where there are fewer resources at all levels of teens' social environments [3].

As described by Petraitis and colleagues (1995), several theories have been successfully applied to explain experimental substance use among adolescents and many of these theories can be applied to other adolescent problem behaviors such as violence and delinquency [4] as often these behaviors tend to cluster together [5]. Social Disorganization Theory (SDT), developed by Shaw and McKay (1942), is particularly useful when examining the relationships between neighborhood environments, family characteristics, and adolescent problem behaviors [6]. SDT suggests that neighborhood structural factors, such as poverty, residential instability, single parenthood, and ethnic heterogeneity prevent or promote neighborhood organization or collective socialization which affects public behavior [7] and influences child and adolescent development [8].

Collective efficacy, one component of social disorganization theory, consists of two constructs, informal social control and social cohesion [8]. Informal social control refers to a shared sense of neighborhood norms which include protecting residents from criminal victimization, with neighbors counting on each other to monitor and supervise youth and protect public order, and with a readiness to monitor young people's activities and intervene when necessary [8,9]. Social cohesion refers to how much neighbors trust each other and share values [8]. Previous research has shown collective efficacy to be inversely associated with neighborhood levels of violence [10] and carrying concealed weapons [11]. Similarly, informal social control has been found to mediate the relationship between structural disadvantages and crime and delinquency [12]. Moreover, a multilevel analysis of informal social control measured in poor black families in Chicago and youth in Denver showed that informal social control was significantly inversely related to problem behavior among adolescents [13].

Parents' perceptions and their behaviors are also influenced by the neighborhood in which they reside. In their research with urban African-American youth, Rankin and Quane (2002) have shown that neighborhood influences on adolescent problem behaviors are transmitted through neighborhood social organization or collective efficacy [14]. Parents are thought to select parenting strategies based on the circumstances in their neighborhood [7], particularly in poor communities [15], and as such, the relationship between neighborhood characteristics and adolescent outcomes may be mediated by parenting strategies [16].

Parental monitoring is a parenting strategy defined as "a set of correlated parenting behaviors involving attention to and tracking of the child's whereabouts, activities, and adaptations (p. 61)" [17]. Thus, parent monitoring is a tool of parenting that allows the parent to actively monitor and supervise the behavior of their child to know more about what the child is doing and with whom. Monitoring encompasses environmental strategies (i.e., not allowing a television in the bedroom), verbal monitoring (i.e., stating rules), and tracking of the child (i.e., calling to see if the child is at a friend's house) [17]. Parental monitoring attempts to prevent alcohol and drug use, delinquency, truancy, and other high-risk behaviors.

In addition to the monitoring of activities, friends, and whereabouts, other important components of parental monitoring include supervision of television viewing and music

listening. Alcohol use is pervasive on television, especially in prime time television with 71% of television shows depicting alcohol use [18]. In 2004, 13.4% of the alcohol advertisements on cable television exceeded the voluntary standard. The number of cable network alcohol advertisements above the 30% audience requirement almost doubled from 2001 to 2004 (9,235 to 18,027). In addition, the advertising of distilled spirits increased on cable television by 5,687% from 2001-2004. Beer advertising during the same time period also increased 113%. This increase in advertising on cable networks resulted in youth aged 12-20 years seeing three alcohol ads for every four seen by adults in 2001, and by 2004 youth were seeing four alcohol advertisements for every five seen by adults [19]. Violence is also very common in television programming with two out of three television programs analyzed in the National Television Violence Study having some violent content [20]. Additionally, compared to non-children's programming has significantly more aggression shown (57% of shows compared to 69%, respectively) [21].

Music also uses alcohol as a theme. Across music popular with youth, 17% of all lyrics contain a reference to alcohol. Alcohol is most commonly mentioned in rap music with 47% of lyrics containing alcohol messages, but it is also present in other music types including countrywestern (13%), top 40 (12%) and alternative rock (10%). Less research has been conducted on the violent content of music lyrics, however, the American Academy of Pediatrics has suggested that parents monitor their children's music consumption [22].

Research regarding the relationships between parental monitoring and substance use and delinquent behaviors among adolescents who may not be considered at high risk for violence (e.g., non-urban secondary school populations, rural adolescent populations, and those enrolled in Health Maintenance Organizations) has indicated that parental monitoring is inversely associated with alcohol use rates [23-26] and delinquency [27-29]. Studies that have examined these associations among ethnically-diverse adolescents in high risk environments such as urban schools [30-34] and public housing developments[35,36] have shown similar associations, with parental monitoring inversely associated with adolescent substance use [35,36].

Although previous research has shown that parental monitoring is inversely associated with adolescent problem behaviors, important issues remain unanswered. First, with a few exceptions [24,32,35-37] the research findings to date come from study populations that consist mainly of older adolescents (14 years of age or older), and it would seem particularly important to understand these relationships in a population of younger adolescents who may be in the initial stages of substance use and delinquency. In addition, while problem behaviors may not be very prevalent in younger adolescents, the occurrence of these behavior, and therefore it is important to understand how these early behaviors may be influenced by both parental and environmental factors. Second, the potential direct effects of informal social control on parental monitoring and adolescent problem behaviors also need further investigation, and may be particularly important among high-risk youth living in high-poverty urban areas where informal social controls might exert greater influence.

The primary goal of the present study was to investigate the relationships between latent constructs of alcohol-related informal social control and parental monitoring on alcohol use and intentions; violent behavior; and delinquent behavior in a low-income, racially diverse population of young urban adolescents using structural equation modeling. Social disorganization theory would suggest that alcohol-related informal social control in neighborhoods may be inversely associated with teen substance use and other high-risk behaviors. We hypothesize that parental monitoring may be positively associated with informal social control and inversely associated with teen high-risk behaviors.

Methods

Procedures

Student Survey—The data used in this study are from the first wave of data from Project Northland-Chicago, a group randomized trial for the prevention/reduction of alcohol use. Sixty-one schools in 22 neighborhood units were recruited for the Project Northland Chicago study. All students enrolled in grade six in the fall of 2002 in the 61 schools were eligible to take the classroom survey. Surveys were administered by three-person teams of trained research staff using standardized protocols in students' normally-scheduled classrooms. The survey was read aloud to the class and students followed along and completed their surveys. Prior to survey administration both parents and students were given the opportunity to refuse participation. Make-up times were scheduled for students who were absent. The study procedures were approved by the University of Minnesota Institutional Review Board for the Protection of Human Subjects and the Chicago Public Schools Law Department. A Certificate of Confidentiality was obtained from the U.S. Department of Human Services to further protect the confidentiality of the student responses.

Parent Survey—After completion of the student survey, students were given a parent survey packet to take home to their parent or primary caregiver. The survey interviewers explained to the students that it was a survey for their parents to complete and mail back to the University within a postage paid envelope. A Spanish version of the survey was included with the English version for households that were primarily Spanish speaking. Students were given a \$5 Subway gift certificate for delivering the survey to their parent and parents were sent \$25 when a completed survey was returned. Teachers distributed duplicate packets to students two weeks following the initial distribution.

Subjects

Student and Parent Survey Participants—There were 4658 students eligible for the baseline student survey and 4259 completed the survey for a 91% response rate. Before any analyses were conducted with the data, students were excluded if they had a number of responses throughout the survey that were inherently inconsistent or blatant exaggerations. We established 29 patterns of inconsistent or exaggerated responding within the survey and eliminated students with four or more of those responses (2% of baseline sample), with a resulting sample of 4164 students.

Parents of 3250 students completed the parent survey (participation rate, 69.8%). Of these, 3034 parent surveys were matched with student surveys (student-parent pairs) for the present analyses. As shown in Table 1, student gender was approximately equally distributed and the mean age was almost 12 years. The student population was racially-diverse with over 70% of the sample identifying themselves as Black/African American or Latino/Hispanic. More than two-thirds of students reported receiving free or reduced-price lunch at school, indicating economic need.

The majority of parent surveys were completed by mothers (78.5%), followed by fathers, and others. Racial/ethnic affiliation matched the student diversity, with about two-thirds of parents identifying themselves as Black/African American or Latino/Hispanic. Over three-quarters of parents reported having education beyond high school, and about half reported being married.

Measures

Data collected from Parents—Parents completed survey items that queried his/her demographic information such as relationship with the student, racial/ethnic background, education, and marital status. Parents also completed survey items that assessed parental

monitoring and neighborhood alcohol-related informal social control regarding alcohol use by minors.

Alcohol-Related Informal Social Control is a latent construct that represents parental perceptions of neighborhood action regarding youth drinking. The construct is comprised of four items measuring probable neighborhood action on teenage drinking, loud parties, and liquor advertisements, and neighborhood action for calling police if there is knowledge of alcohol sales to minors. Item response options were on a 5-point scale ranging from "would not do something about it" to "definitely would do something about it." Forty-three percent of parents reported that their neighbors would definitely do something about teenage drinking, with a similar percentage (40%) reporting neighborhood action on loud parties. Sixty-three percent of parents said their neighbors would call police if a store sold alcohol to minors. Only 23% of parents reported that neighbors were created for this study based on similar items used in a previous neighborhood/community action scale.38 Internal consistency reliability for this scale was 0.77.

Parental Monitoring is also a latent construct in our models. This construct represents the degree of parental monitoring of a child's everyday activities and whereabouts, and consists of four items, adapted from items used in previous research [39], that assess parental monitoring of TV, monitoring of music, knowing whom the child is with, and his/her whereabouts. Response options were on a 5-point scale ranging from "never/none" to "always/all." Most parents (83%) reported always knowing their child's whereabouts in a usual day and 78% reported always knowing whom their child was with when he/she is away from home. Always monitoring television viewing and music was relatively less prevalent (39% and 36%, respectively). Internal consistency reliability for this scale was 0.68.

Data collected from Students—Students completed a self-administered survey that measured a wide range of substance-related questions based on previous substance abuse prevention research [40-44]. The student survey content that is pertinent to the present study includes demographics; alcohol use and intentions to use alcohol; and delinquent and violent behaviors.

Three latent constructs were used in the present study as outcome factors: Alcohol Use and Intentions, Violent Behavior, and Delinquent Behavior. These scales have been used extensively in previous research [41,45-48]. Alcohol Use and Intentions was represented by alcohol use frequency (three items measuring the number of occasions of alcohol in past year, past month, and past week, with seven response options from "0" to "40 or more occasions"), heavy use and drunkenness (two items measuring five or more drinks in a row in past two weeks and a frequency of lifetime drunkenness, with six response options ranging from "never" to "10 or more times"), and alcohol intentions (three items measuring drinking if best friend offered it, intentions to drink in next month, and intentions to drink as senior in high school, with three response options of "yes," "not sure," "no"). We used items reflecting the full range of alcohol frequency, heavy use, and intentions to use because of the relatively young age of the students ($\alpha = 0.63$ in the present study sample). Seventeen percent of students in our sample reported using alcohol in the past year, and 6.8% reported using alcohol in the past month. Seventeen percent of students in our sample reported using alcohol in the past year; a prevalence rate slightly higher than same-aged youth in a statewide assessment [49], one of the few comparable datasets at this age.

Violent Behavior was represented by four items regarding past month behavior (beating someone up, pushing someone, kicking someone, and fighting); response options were "never," "1-3 times," or "4 or more times." The most prevalent violent behavior was pushing someone

(62.9%), followed by beating someone up (51.6%), kicking someone (46.8%), and fighting (25.8%). This scale has been previous used in a similar population and was found to be reliable (Cronbach's alpha of .76) [45]. In our sample, the reliability of this scale is also adequate with a Cronbach's alpha of 0.82. More serious forms of violent behavior are relatively rare in this age youth.

Delinquent Behavior was represented by four items assessing past month behavior (stealing from a store, skipping school, not following school rules, detention); response options were "never," "1-3 times," or "4 or more times." The most prevalent delinquent behavior was not following school rules (45.8%), followed by detention (25.1%), stealing from a store (9.0%), and skipping school (3.4%). The reliability of this scale in our study sample is 0.57.

Statistical analysis

Descriptive statistics (e.g., demographic frequencies) were produced with SAS (version 9.1). Structural equation modeling (SEM) conducted with LISREL (version 8.2) was used for all confirmatory factor analyses and structural modeling. SEM was conducted to reduce the measurement error typically associated with other procedures such as regression [50]. Prior to analyzing the structural model (i.e., associations between latent factors), the first step was to evaluate the construct validity of the five measurement models (i.e., Alcohol-Related Informal Social Control, Parental Monitoring, Alcohol Use and Intentions, Violent Behavior, and Delinquent Behavior) using confirmatory factor analysis [51]. Confirmatory factor analysis tests the factor structure, the overall fit of the model to the data, and the fit of each observed measure to the latent structure. SEM is particularly useful in that observed variables contain random or systematic errors, but latent constructs do not, and the use of multiple indicators eliminates the measurement error associated with a single measure of a behavior or a score [50]. Owing to the fact that all of the observed variables were ordinal and therefore do not have an origin or unit of measurement, a matrix of polychoric correlations was created and the estimated asymptotic covariance matrix of these correlations was used for analyses to produce asymptotically correct standard errors [52]. The weighted least square estimation method was used for all analyses. All available student survey data (males and females combined) were used to test the measurement models, with sample sizes ranging from 3000-3250 owing to missing data.

Five measurement models were fit to represent the following latent constructs: Alcohol-Related Informal Social Control, Parental Monitoring, Alcohol Use and Intentions, Violent Behavior, and Delinquent Behavior. One of the path parameters for each latent variable was fixed to 1.0. The weighted least squares method was used for parameter estimation. Errors were not allowed to correlate. Fit of the measurement models was assessed with three goodness-of-fit indices: the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the goodness-of-fit-index (GFI). RMSEA is an index that attempts to balance model complexity and parsimony because it does not show improvement in model fit solely because new parameters are introduced in the model [53]. Guidelines for model fit are: RMSEA <.05 is considered close fit, .05 < RMSEA < .08 is considered reasonable fit [53]. Other indices that will be used to evaluate model fit are the comparative fit index (CFI) [54], the goodness-of-fit index (GFI) [55], and the normed fit index (NFI) [56].

The second step was to test the structural models of the latent constructs of Alcohol-Related Informal Social Control, Parental Monitoring and the three adolescent behavioral outcomes. The structural model refers to the model that captures the way that latent variables relate to each other. The structural model fit was evaluated with the RMSEA index following the method described above. The structural model was constructed with directional paths leading from Informal Social Control to Parental Monitoring to all three adolescent outcomes (Alcohol Use

and Intentions, Violent Behavior, and Delinquent Behavior). The three outcome factors were allowed to correlate.

Results

Testing of Measurement Models

As shown in Table 2, three of the five measurement models (Alcohol Use and Intentions, Violent Behavior, and Delinquent Behavior) had close fit to the data, with RMSEA fit statistics ranging from 0.019-0.040, and similar indications from fit statistics for the NFI and the GFI. The fit statistics for the measurement model of Alcohol-Related Informal Social Control met RMSEA criteria for reasonable fit with other statistics indicating very good fit. The GFI and CFI fit statistics for the measurement model of Parental Monitoring indicated good fit; however, fit was not deemed as good according to NFI and RMSEA.

Testing of Structural Model

Analyses of the structural model indicated good model fit (RMSEA = 0.037, NFI = 0.942, CFI = 0.953, and GFI = 0.987). As shown in Figure 1, the standardized path coefficient between Alcohol-Related Informal Social Control and Parental Monitoring was positive and statistically significant (γ =0.42, p<.001). The direct paths from Parental Monitoring to all three adolescent outcomes were negative and significant (Alcohol Use and Intentions: β = -0.19, p<.001; Violent Behavior: β = -0.12, p<.001; and Delinquent Behavior: β = -0.19, p<.001). Direct paths from Alcohol-Related Informal Social Control to adolescent outcomes were not significant (Alcohol Use and Intentions: γ = -0.04, Violent Behavior: γ = 0.01, and Delinquent Behavior: γ = 0.04; paths not shown on figure).

Discussion

Few studies have examined the associations between alcohol-related informal social control and parental monitoring and their relationships with adolescent problem behaviors among low income, racially diverse young adolescents in urban neighborhoods. Using structural equation modeling, we examined parental perceptions of their neighborhood's alcohol-related informal social control, its association to parental reports of monitoring their children's behavior, and adolescents' reports of alcohol use and intentions, violent and delinquent behavior. We found that parents' perceptions of alcohol-related informal social control were significantly and positively related to their reports of parental monitoring, and that parents' monitoring of children's activities was significantly inversely related to alcohol use and intentions as well as violent and delinquent behavior among youth.

The present study findings that parents' perceptions of informal social controls to curb underage drinking within neighborhoods is related to higher levels of parental monitoring and, in turn, to lower levels of adolescent alcohol use and intentions, violent behavior and delinquent behavior among youth in a lower income, urban area, suggest that parents' perceptions of social control and their own monitoring are significantly associated and that actions to increase one of these factors may also influence the other. Grassroots efforts to actively engage families and communities to increase informal social control and parental monitoring with their communities may be one strategy to help prevent adolescent problem behaviors.

Our significant inverse associations between parental monitoring and delinquency among urban youth are consistent with previous research of less at-risk and older youth [27-29,32, 37]. Similarly, the significant inverse associations between parental monitoring and alcohol use and intentions found in the present study corroborate previous research findings of at-risk and not at risk youth [23-26,30-32,35-37]. Additionally, our finding that informal social control

was significantly related to higher levels of parental monitoring corroborates findings reported by Rankin and Quane (2002) with African American urban youth [14], and extends this finding to Hispanic youth as well. Our replication of previous research findings can be interpreted as a representation of a robust finding across urban and suburban youth of various ages. Alternatively, one could argue that since both studies measured informal social control via parent report rather than an objective measure of social control, the significant association between these variables is due to correlated measurement errors since parents were the informants about their own monitoring as well as their neighborhood's informal social control [57]. However, our findings showed that, in contrast to parental monitoring, informal social control was not significantly associated with the adolescent problem behaviors, meaning that these two factors measure different constructs.

The lack of a direct association between alcohol-related informal social control and adolescent violence and delinquency in the present study is in contrast to previous research that has shown collective efficacy to be inversely associated with neighborhood levels of violence [10] and carrying concealed weapons [11]. Although we would expect some similarities in how collective efficacy and informal social control are related to adolescent behavioral outcomes, these constructs may be different enough to have distinct relationships with adolescent outcomes. Our measure of informal social control also focused on alcohol-related events in the community which may also account for the difference in findings between this study and previous studies of more general informal social control and violence. In addition, owing to the youth of our sample, unlike other studies, we did not measure serious violence associated with carrying concealed weapons. Alternatively, differences in the level of measurement between the studies could also account for the different findings; the present study measured violent and delinquent behavior at the individual level and the study by Sampson and colleagues measured violence at the census tract level.

In addition to its cross-sectional design that limits our ability to address causation, the present study is also limited by the model fit of the parental monitoring latent construct. We would have liked to have seen better model fit for this construct, as well as higher alpha coefficients; however, we believe this construct is useful in the context of the entire structural model because fit indices indicate that the overall model fits the data well. Moreover, perhaps parental monitoring across diverse behaviors such as television viewing, music, and friendships should not be expected to fit well in a measurement model that assesses parents' response to all of the behaviors in a similar manner. The study has considerable strengths, including data collected both from parents and teens, the large sample size, the inclusion of several outcome measures, the theoretical basis of the model, and its focus on a young, ethnically-diverse, high-risk urban population.

The present study findings suggest that efforts to engage parents to be more active in monitoring adolescents' activities may be related to lower levels of underage drinking, violence and delinquency among urban youth. Although parental perceptions of neighborhood norms and action (informal social control) regarding teenage drinking is significantly related to their reports of monitoring activities, the neighborhood social action may be too distal to be directly associated with adolescent problem behaviors. Still, the strong association between perceived informal social controls and parental monitoring suggests that prevention efforts might explore how to further strengthen these linkages, perhaps by including neighborhood monitoring of youth as a strategy that is adopted by community members. This might reinforce greater parental monitoring as well as extend the notion of monitoring to other significant adults in teens' lives.

Acknowledgment

This study was supported by grant (NIH/RO1 R01 AA013458) to Kelli Komro. We thank the Project Northland Chicago staff for extensive efforts in data collection, data management and computer programming. A special thanks goes to all the students and parents participating in the study.

References

- 1. Wagenaar A, Perry CL. Community strategies for the reduction of youth drinking: Theory and application. Journal of Research on Adolescence 1994;4(2):319–345.
- Perry, CL. Creating health behavior change: how to develop community-wide programs for youth. Kazdin, AE., editor. 43. Sage Publications, Inc.; Thousand Oaks, CA: 1999. Developmental Clinical Psychology and Psychiatry Series
- Furstenberg, FF., Jr.; Hughes, ME. The influence of neighborhoods on children's development: A theoretical perspective and a research agenda. In: Brooks-Gunn, J.; Duncan, GJ.; Aber, JL., editors. Neighborhood Poverty: Policy Implications in Studying Neighborhoods. Russell Sage Foundation; New York: 1997. p. 2p. v
- 4. Petraitis J, Flay BR, Miller TQ. Reviewing theories of adolescent substance use: organizing pieces in the puzzle. Psychological Bulletin 1995;117(1):67–86. [PubMed: 7870864]
- Ellickson P, Saner H, McGuigan KA. Profiles of violent youth: Substance use and other concurrent problems. American Journal of Public Health 1997;87(6):985–991. [PubMed: 9224181]
- Shaw, C.; McKay, H. Juvenile delinquency and urban areas. University of Chicago Press; Chicago: 1942.
- Leventhal T, Brooks-Gunn J. The neighborhoods they live in: the effects of neighborhood residence on child and adolescent outcomes. Psychological Bulletin 2000;126(2):309–337. [PubMed: 10748645]
- Duncan, GJ.; Raudenbush, SW. Neighborhoods and adolescent development: how can we determine the links?. In: Booth, A.; Crouter, AC., editors. Does it take a village? Community effects on children, adolescents, and families. Lawrence Erlbaum; Mahwah, N.J.: 2001. p. xip. 263
- 9. Nash JK, Bowen GL. Perceived crime and informal social control in the neighborhood as a context for adolescent behavior: a risk and resilience perspective. Social Work Research 1999;23(3):171–186.
- Sampson RJ, Raudenbush SW, Earls F. Neighborhoods and violent crime: A multilevel study of collective efficacy. Science 1999;277(5328):918–924. [PubMed: 9252316]
- Molnar BE, Miller MJ, Azrael D, Buka SL. Neighborhood predictors of concealed firearm carrying among children and adolescents: Results from the project on human development in Chicago neighborhoods. Archives of Pediatric & Adolescent Medicine 2004;158(7):657–664.
- Sampson, RJ.; Morenoff, JD. Ecological perspectives on the neighborhood context of urban poverty: Past and present. In: Brooks-Gunn, J.; Duncan, GJ.; Aber, JL., editors. Neighborhood Poverty: Policy Implications in Studying Neighborhoods. Russell Sage Foundation; New York: 1997.
- 13. Sampson, RJ. Violence and childhood in the inner city. McCord, J., editor. Cambridge University Press; Cambridge, UK; New York: 1997. p. xiiip. 334Cambridge criminology series
- Rankin BH, Quane JM. Social contexts and urban adolescent outcomes: the interrelated effects of neighborhoods, families, and peers on African-American youth. Social Problems 2002;49(1):79– 100.
- Jarrett RL. Successful parenting in high-risk neighborhoods. The Future of Children 1999;9(2):45– 50. [PubMed: 10646257]
- Furstenberg, FF., Jr.; Cook, TD.; Eccles, J.; Elder, GH., Jr.; Sameroff, A. Managing to Make It. University of Chicago Press; Chicago, IL: 1999.
- Dishion TJ, McMahon RJ. Parental monitoring and the prevention of child and adolescent problem behavior: A conceptual and empirical formulation. Clinical Child and Family Psychology Review 1998;1(1):61–75. [PubMed: 11324078]
- 18. Christenson, RG.; Henriksen, L.; Roberts, DF.; Kelly, M.; Carbone, S.; Wilson, AB. Substance use in popular prime-time television. Sponsored by Office of National Drug Control Policy and

Mediascope Macro International, Inc.; 2000. Accessed at: http://www.mediacampaign.org/publications/primetime/primetimetv.pdf

- 19. The Center on Alcohol Marketing and Youth. Alcohol advertising on television, 2001-2004: The move to cable. 2005. Accessed at http://camy.org/research/tv1205/report.pdf
- 20. The Henry J. Kaiser Family Foundation. Key Facts: TV Violence. 2003. Accessed at http://www.kff.org/entmedia/upload/Key-Facts-TV-Violence.pdf
- 21. Wilson BJ, Smith SL, Potter WJ, Kunkel D, Linz D, Colvin CM, Donnerstein E. Violence in children's television programming: Assessing the risks. Journal of Communication 2002;52(1):5–35.
- 22. American Academy of Pediatrics. Impact of music lyrics and music videos on children and youth (RE9144). Pediatrics 1996;98(6):1219–1221. [PubMed: 8951286]
- Beck KH, Shattuck T, Haynie D, Crump AD, Simons-Morton B. Associations between parent awareness, monitoring, enforcement and adolescent involvement with alcohol. Health Education Research 1999;14(6):765–775. [PubMed: 10585384]
- 24. Jackson C, Henriksen L, Dickinson D. Alcohol-specific socialization, parenting behaviors and alcohol use by children. Journal of Studies on Alcohol 1999;60(3):362–367. [PubMed: 10371264]
- Duncan SE, Duncan TE, Biglan A, Ary D. Contributions of the social context to the development of adolescent substance use: A multivariate latent growth modeling approach. Drug and Alcohol Dependence 1998;50(1):57–71. [PubMed: 9589273]
- Cottrell L, Xiaoming L, Harris C, D'Alessandri D, Atkins M, Richardson B, et al. Parent and Adolescent Perceptions of Parental Monitoring and Adolescent Risk Involvement. Parenting: Science and Practice 2003;3(3):179–195.
- 27. Patterson GR, Stout-Loeber M. The correlation of family management practices and delinquency. Child Development 1984;55(4):1299–1307. [PubMed: 6488958]
- Laird RD, Pettit GS, Bates JE, Dodge KA. Parents' monitoring-relevant knowledge and adolescents' delinquent behavior: Evidence of correlated developmental changes and reciprocal influences. Child Development 2003;74(3):752–768. [PubMed: 12795388]
- 29. Jacobson KC, Crockett LJ. Parental Monitoring and Adolescent Adjustment: An Ecological Perspective. Journal of Research on Adolescence 2000;10(1):65–97.
- Forehand R, Miller KS, Dutra R, Chance MW. Role of parenting in adolescent deviant behavior: replication across and within two ethnic groups. Journal of Consulting and Clinical Psychology 1997;65(6):1036–1041. [PubMed: 9420365]
- Smith C, Krohn MD. Delinquency and family life among male adolescents: the role of ethnicity. Journal of Adolescence 1995;24(1):69–93.
- 32. Griffin KW, Botvin GJ, Scheier LM, Diaz T, Miller NL. Parenting practices as predictors of substance use, delinquency, and aggression among urban minority youth: moderating effects of family structure and gender. Psychology of Addictive Behaviors 2000;14(2):174–184. [PubMed: 10860116]
- Borawski EA, Ievers-Landis CE, Lovegreen LD, Trapl ES. Parental monitoring, negotiated unsupervised time, and parental trust: the role of perceived parenting practices in adolescent health risk behaviors. Journal of Adolescent Health 2003;33(2):60–70. [PubMed: 12890596]
- DiClemente RJ, Wingood GM, Crosby R, Sionean C, Cobb BK, Harrington K, Davies S, Hook EW 3rd, Oh MK. Parental monitoring: Association with adolescent's risk behaviors. Pediatrics 2001;107:1363–1368. [PubMed: 11389258]
- Li X, Feigelman S, Stanton B. Perceived parental monitoring and health risk behaviors among urban low-income African-American children and adolescents. Journal of Adolescent Health 2000;27(1): 43–48. [PubMed: 10867351]
- 36. Li X, Stanton B, Feigelman S. Impact of perceived parental monitoring on adolescent risk behavior over 4 years. Journal of Adolescent Health 2000;27(1):49–56. [PubMed: 10867352]
- Griffin KW, Scheier LM, Botvin GJ, Diaz T. Ethnic and gender differences in psychosocial risk, protection, and adolescent alcohol use. Prevention Science 2000;1(4):199–212. [PubMed: 11523748]
- Dahlberg, LL.; Toal, SB.; Behrens, CB. Measuring violence-related attitudes, beliefs, and behaviors among youths: A compendium of assessment tools. Centers for Disease Control and Prevention, Nation Center for Injury Prevention and Control; Atlanta, GA: 1998.

- 39. Seppanen, P.; Jerstad, S. Center for Substance Abuse Prevention Core Measures. University of Minnesota, College of Education and Human Development, Center for Applied Research & Educational Development; Minneapolis, MN: 1999.
- 40. Komro KA, Perry CL, Williams CL, Stigler MH, Farbakhsh K, Veblen-Mortenson S. How did Project Northland reduce alcohol use among young adolescents? Analysis of mediating variables. Health Education Research 2001;16(1):59–70. [PubMed: 11252284]
- 41. Williams CL, Toomey TL, McGovern P, Wagenaar AC, Perry CL. Development, reliability, and validity of self-report alcohol-use measures with young adolescents. Journal of Child and Adolescent Substance Abuse 1995;4(3):17–40.
- Perry CL, Komro KA, Veblen-Mortenson S, Bosma L, Munson K, Stigler M, Lytle LA, Forster JL, Welles SL. The Minnesota D.A.R.E. Plus Project: Creating community partnerships to prevent drug use and violence. Journal of School Health 2000;70(3):84–88. [PubMed: 10763475]
- Johnston, LD.; O'Malley, PM.; Bachman, JG. National Survey Results on Drug Use from the Monitoring the Future Study, 1975-1995, Volume 1: Secondary School Students. USDHHS, NIDDA, NIH; Rockville, MD: 1996.
- Kann L, Warren CW, Harris WA, Collins JL, Williams BI, Ross JG, Kolbe LJ. Youth risk behavior surveillance -United States, 1995. Morbidity and Mortality Weekly Report. CDC Surveillance Summaries 1996;45(4):1–84. [PubMed: 8841032]
- Komro KA, Perry CL, Munson KA, Stigler MH, Farbakhsh K. Reliability and validity of self-report measures to evaluate drug and violence prevention programs. Journal of Child and Adolescent Substance Abuse 2004;13(3):17–51.
- Perry CL, Williams CL, Komro KA, Veblen-Mortenson S, Stigler M, Munson KA, Farbakhsh K, Jones RM, Forster JL. Project Northland: long-term outcomes of community action to reduce adolescent alcohol use. Health Education Research 17(1):117–132. [PubMed: 11888042]200
- Perry CL, Williams CL, Veblen-Mortenson S, Toomey TL, Komro KA, Anstine PS, McGovern PG, Finnegan JR, Forster JL, Wagenaar JC, Wolfson M. Project Northland: outcomes of a communitywide alcohol use prevention program during early adolescence. American Journal of Public Health 1996;86(7):956–965. [PubMed: 8669519]
- Komro KA, Perry CL, Veblen-Mortenson S, Farbakhsh K, Kugler KC, Alfano KA, Dudovitz BS, Williams CL, Jones-Webb R. Cross-cultural adaptation and evaluation of a home-based program for alcohol use prevention among urban youth: The Slick Tracy Home Team Program. Journal of Primary Prevention 2006;27(2):135–154. [PubMed: 16502143]
- 49. Minnesota Departments of Education, Health, Human Services, Public Safety & Corrections. Minnesota student survey 1992-2004 Trends: A picture of the behaviors, attitudes and perceptions of Minnesota's 6th, 9th, and 12th graders. 2004. Accessed at http://education.state.mn.us/mde/Learning_Support/Safe_and_Healthy_Learners/Minnesota_Student_Survey/MSS_04_Find
- 50. Bollen, KA. Structural Equations with Latent Variables. John Wiley & Sons; New York: 1989.
- Joreskog, KG. Testing structural equation models. In: Long, JS., editor. Testing Structural Equation Models. Sage Publications; Newbury, CA: 1993.
- Joreskog KG. Analysis of ordinal variables using polychoric correlations and weighted least squares. Quality & Quantity 1990;24:387–404.
- 53. Browne MW, Cudeck R. Alternative ways of assessing model fit. Sociological Methods and Research 1992;21:250–258.
- Sentler PM. Comparative fit indexes in structural models. Psychological Bulletin 1990;107(2):238– 246. [PubMed: 2320703]
- 55. Joreskog, KG.; Sorbom, D. LISREL 7: A guide to the program and applications. 2nd ed.. SPSS, Inc; Chicago: 1989.
- Bentler PM, Bonett DG. Significance tests and goodness-of-fit in the analysis of covariance structures. Psychological Bulletin 1980;88(3):588–606.
- 57. Duncan GJ, Raudenbush SW. Assessing the effects of context in studies of child and youth development. Educational Psychology 1999;34(1):29–41.



Figure 1.

Structural model depicting standardized paths among alcohol-related informal social control, parental modeling, and adolescent problem behaviors (n=2897). (Nonsignificant paths between informal social control and adolescents outcomes not shown.) Measurement error terms not shown. *p<.05 (t-test), **p<.01 (t-test).

Table 1

Demographics of Project Northland Chicago sample: matched students and parents (n=3,250)

Variable	Mean or %
Student Characteristics	
Student age in years and (standard dev)	11.8 (0.57)
Male	48.2%
Race/ethnicity	
Asian American	5.5%
Black/African American	41.1%
Latino/Hispanic/Mexican	29.7%
Native American/American Indian	1.8%
Caucasian	14.8%
Mixed Race	7.1%
Receives reduced-price lunch	68.5%
Parent Characteristics	
Mother	78.5%
Father	13.1%
Other (Grandparent, Aunt, Uncle, Foster)	8.4%
Race/ethnicity	
Asian American	5.9%
Black/African American	43.4%
Latino/Hispanic/Mexican	24.2%
Native American/American Indian	0.4%
Caucasian	17.8%
Mixed Race/Other	8.2%
Education	
Did not graduate high school	22.0%
High school graduate	27.4%
Some vocational or college education	35.0%
College or graduate degree	15.6%
Married	53.6%
Had survey translated or help with survey	9.5%

NIH-PA Author Manuscript

NIH-PA Author Manuscript

	2
	1000
	4400
	Z
	4000
	2.0
	ţ
	2
	-
v	ţ
Ø	\$
	ç
	ւ+
	ę
	ŧ
	t
	ų
	0.00
	ş
	.;
	5
	-
	2
	ţ
	Ύ,

Standardized factor l	loadings and fit statistics for	measurement models	for Project Northland Chic	ago sample	
Item	Alcohol-Related Informal Social Control	Parental Monitoring	Alcohol Use and Intentions	Violent Behavior	Delinquent Behavio
NA on teen drinking	.813				
NA: call police for illegal alcohol sales	.806				
NA on loud party	.765				
NA on visible liquor ads	.604				
Know where child is		.42			
Know whom child is with		.84			
Monitor TV		.82			
Monitor music		.51			
Past year use			.89		
Past month use			.93		
Past week use			.86		
Heavy alcohol use			.87		
Lifetime drunkenness			.82		
Drink if best friend offered			82		
Think will be drinking in next month			85		
Think will be drinking as senior in high school			75		
Beat someone up				.61	
Pushed someone				.83	
Kicked someone				.89	
Frequency of fighting				.86	
Stole something					.57
Skipping school					.47
Breaking school rules					.82
Detention					.78
Fit indices:					
χ^2 (df)	22.6 (2) n<.001	57.0 (2) p<.001	114.2 (20) n<.001	6.2 (2) p<.001	4.1 (2) (NS)
RMSEA	0.056	0.093	0.040	0.026	0.019
NFI	0.993	0.959	0.971	0.999	0.997
GFI	0.999	0.996	0.996	1.000	1.000
CFI	0.993	0.960	0.976	0.999	0.998
NA = Neighborhood Action; NS = Not sign	nificant				

Fulkerson et al.

т 7

Т Т Т

Ē

Т Т

Т