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Structure and deviancy training in after-school programs

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A B S T R A C T

Evidence regarding the effectiveness of after-school programs (ASPs) for reducing problem behaviors is mixed. Unstructured ASPs may increase antisocial behavior by increasing "deviancy training" opportunities, when peers reinforce deviant attitudes and behaviors. This research analyses approximately 3000 five-minute intervals from 398 observations of activities delivered as part of an ASP in five public middle schools. Analyses of peer and group leader responses to deviant behavior in the context of ASP activities indicated that while peer responses are generally reinforcing, group leaders typically do not respond to deviance. Multi-level analyses of the association between activity structure and deviant behavior indicate that higher levels of structure in the activity *as a whole* decrease levels of violence and counternormative behavior. As the level of structure in five-minute intervals *within* the activity increases, the level of violent behavior declines, but violent talk (e.g., threats to commit violence) increases. Implications for after-school programming are discussed.

After-school programs (ASPs) are intended in part to occupy youth's after-school time so that they avoid involvement in dangerous or harmful behaviors. A 2002 nationwide poll found 65% of registered voters believed after-school programs were an "absolute necessity" for their communities (After School Alliance, 2002), and the U.S. Congress has allocated $1 billion annually for ASPs in each of the last five years. ASPs generally seek to increase supervision of youth between approximately 2 and 6 p.m., provide constructive activities, teach socialization skills, promote positive goals (e.g., persistence in school) and otherwise encourage healthy development. Although some evaluations of ASPs have reported beneficial effects of participation on youth involvement in constructive activities, learning and social outcomes for students (Durlak & Weissberg, 2007; Lauer et al., 2006), their effectiveness for reducing problem behavior has been shown to depend upon the degree of structure in the program (Gerstenblith et al., 2005; Gottfredson, Cross, & Soulé, 2007) and the use of evidence-based practices (Durlak & Weissberg, 2007; Gerstenblith et al., 2005; Gottfredson, Gerstenblith, Soulé, Womer, & Lu, 2004; Weisman et al., 2002). Additionally, many ASPs have been shown to have no effect on youth outcomes and in some cases to produce negative outcomes (e.g., conduct problems, increased substance use, and negative peer influence) in comparison to non-participants (Dynarski et al., 2004; Mahoney, 2000; Weisman et al., 2002).

Although there has been speculation about the features of ASPs that might promote delinquent behavior, little research has directly sought to isolate these factors. In the present study, we address this by assessing a mechanism through which the level of structure in an ASP may promote or inhibit delinquency. Structure is defined as the extent to which activities include clear expectations for how students should spend their time. Dynarski et al. (2004), Gottfredson et al. (2004), and Mahoney, Stattin, and Lord (2004) suggest that grouping children together in a relatively unstructured environment (i.e., where youth

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are not given direction about how to spend their time; Mahoney, Larson, Eccles, & Lord, 2005) and allowing negative behaviors to be modeled may increase delinquent behavior through a social learning process. Outside of the ASP context, two lines of research have linked unstructured time and the learning of deviant behaviors. First, research by Dishion and colleagues highlights a process of "deviancy training" through which peers reinforce each others' norm-violating behaviors (Dishion, 1996; Dishion, McCord, & Poulin, 1999; Dishion, Spracklen, Andrews, & Patterson, 1996; Patterson, Dishion, & Yoerger, 2000). In addition, research by Osgood and colleagues (Haynie & Osgood, 2005; Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996) shows that delinquency occurs more often in unsupervised and unstructured activities, independent of the presence of delinquent peers. Consistent with deviancy training, peers may be more likely to encourage delinquent acts in such activities.

Using observations of a school-based ASP that combined structured, evidence-based programming with more typical, less structured activities, this study builds on prior research in these two areas to examine the mechanisms through which unstructured ASPs may increase participating youth's negative behaviors. It extends prior research on deviancy training by applying a different research methodology than has been used heretofore. While prior research has demonstrated that an individual's exposure to deviancy training is related to his or her later involvement in delinquent activities, our research focuses on contemporaneous observations of structure, deviant behavior, and reinforcement of deviance during after-school activities. By using activities rather than individuals as a unit of analysis, we hope to rule out individual-level selection artifacts as an alternative explanation for the observed association between exposure to deviancy training and later deviant behavior. That is, we hope to add to the existing literature on deviancy training by showing that the observed association is not explained by the predisposition of delinquent youth to seek out environments in which deviant behaviors are more likely to be reinforced. We begin with a review of relevant research on activity structure, deviancy training, and delinquent behavior.

Activity structure and deviant behavior

The influence of daily activities on deviant behavior has been the subject of extensive investigation by Osgood and colleagues (Osgood & Anderson, 2004; Osgood, Anderson, & Shaffer, 2004; Osgood et al., 1996), who found that supervised and structured activities encourage social control and reduce opportunities for deviance. Osgood et al. (1996) used longitudinal data on a nationally representative sample of 18–26-year-olds to test three aspects of activities that may promote deviance: 1) the presence of peers (who serve as accessories or enhance the performance aspect of the act); 2) the absence of authority figures; and 3) the lack of structure. Analyzing only within-individual variability to rule out the possibility that stable individual differences influence both choice of activity and deviant behavior, the authors found a positive association between participating in unstructured and unsupervised activities (e.g., riding around in cars for fun, going to parties, hanging out informally) and delinquent outcomes (criminal behavior, substance use, and dangerous driving). Unstructured socializing with peers away from home increased involvement in delinquency, while structured but unsupervised activities (e.g., going out on a date, participating in exercise and sports) were not associated with increased deviance. A limitation of this study, however, was the inability to directly measure the presence of the three delinquency-facilitating elements. They were instead inferred based on the type of activity. Also, time-varying factors that might influence both activity choice and deviant behavior were not controlled.

Osgood and Anderson (2004) and Haynie and Osgood (2005) extended research on the influence of unstructured activities on delinquency. Osgood and Anderson (2004), studying eighth-graders from 36 schools in 10 cities, confirmed that unstructured socializing (number of hours in a typical week spent hanging out with friends not doing anything in particular, with no adults around) was positively related to self-reported delinquency at both the individual and school levels. Haynie and Osgood (2005) found, in a nationally representative sample of 7th–12th graders, that time spent with peers in unstructured activities independently predicted individual offending as much as the deviance of peer networks. Although association with delinquent peers directly influenced one's own delinquency, the amount of time spent in unstructured settings with deviant or *non*-deviant peers was also related to increased delinquent behavior. Both of these studies explicitly controlled for demographic characteristics as well as other variables (such as poor parental monitoring) that might cause youth both to engage in delinquency and to participate in unstructured activities.

Using a cross-sectional survey of eighth graders (and a mailed survey of their parents) from six communities within one Swedish county, Mahoney and Stattin (2000) examined the effect of participating in structured activities (involving same-age peers and adult leadership) versus participating in unstructured youth recreation centers on behavioral outcomes. Youth recreation centers (YRCs) loosely resemble community centers in the U.S. (e.g., they attempt to provide youth with prosocial activities in the evenings and are available to youth ages 13–19), but YRC activities are mainly youth-directed, with little guidance for how time is spent. Results indicated that students who participated in structured activities reported less antisocial behavior (such as shoplifting, getting drunk, or contact with police). Conversely, participation in the YRC was related to worse school performance, staying out late, and associating with older peers or peers who have had police contact. The authors noted, however, that the study failed to rule out selection effects. That is, youth prone to antisocial behavior may have chosen to participate in the less structured YRCs.

Mahoney et al. (2004) attempted to rectify this shortcoming using a longitudinal sample of eighth grade students from the same county in Sweden. The pattern of results differed for males and females: For males, measures of prior antisocial behavior, poor parental monitoring, and poor communication with parents predicted the frequency of participation in YRCs.

Controlling for these known selection effects, frequency of participation in the YRC during ninth (but not eighth) grade was significantly related to a measure of antisocial behavior taken at ninth grade. For females, only a measure of low school attachment predicted the frequency of participation in YRCs. Controlling for this selection effect, frequency of participation in the YRC during both eighth and ninth grades was significantly related to a measure of antisocial behavior taken at ninth grade. These results demonstrate the need to control selection effects in individual-level studies of activity participation, and they suggest that participation in unstructured youth centers increases antisocial behavior, at least for girls. The overlapping time frames for the measures of delinquency and YRC participation make it impossible to rule out the possibility that delinquent behavior increased participation in the YRCs (rather than vice versa) for boys.

This research on daily activities and delinquency suggests that unstructured and unsupervised socializing with peers increases delinquency because such activities afford more opportunities for deviance than structured, supervised activities. Osgood et al. (1996) suggested that these activities increase later deviance by reducing the amount of informal social control to which youth are exposed and by increasing rewards for deviant acts once committed. Peers are more likely than adults to reward deviance with attention, approval and status. Although this research has linked the structure of activities to delinquency and speculated on the mechanism through which low structure might influence subsequent delinquency, it has not completely ruled out selection artifacts and has stopped short of actually testing hypotheses about the mechanisms linking activity structure and deviance.

Deviancy training and deviant behavior

Dishion's research on "deviancy training" (Dishion, 1996; Dishion et al., 1999, 1996; Patterson et al., 2000) begins to fill this gap. It suggests that peer reinforcement for rule-breaking or norm-violating talk and actions increases subsequent deviant behavior. Patterson et al. (2000), following at-risk youth from grades 4 through 12, showed that the growth of new deviant behavior was related to the level of deviancy in the fourth grade peer group. They further demonstrated that effects of early involvement with delinquent peers on growth in delinquency (e.g., arrests, substance use, and number of sexual partners) were mediated by the amount of deviancy training (e.g., the rate of reinforcement for deviant behaviors and the level of peer delinquency) to which youth were exposed during eighth grade. Their results underscore the importance of positive peer reinforcement for antisocial behaviors in the development of subsequent delinquency.

Snyder et al. (2005) studied deviancy training on 267 low-socioeconomic youth during kindergarten and first grade. Observations of playground behavior measured the frequency of overt aggressive behaviors as well as covert deviant behaviors (e.g., lying to an adult, blaming others for one's own misbehavior). Teacher and parent ratings of overt and covert conduct problems were also obtained. Videotaped peer interactions between same-gender classmates were coded for evidence of six types of deviant talk (sex, alcohol and tobacco, stealing or lying, aggression and swearing, authority defiance, and "gross" body functions) as well as peer responses to such behaviors. The study assessed the independent influences of association with deviant peers during kindergarten and social endorsement of deviant activities (deviancy training) on the growth in conduct problems over a two-year period. Associating with deviant peers in kindergarten predicted increases both in deviancy training and conduct problems. In addition, high levels of deviancy training or increases in deviancy training over the kindergarten year predicted increases in conduct problems at home, on the playground, and in school.

Despite efforts to control for selection effects by examining growth in deviant behaviors as opposed to absolute levels, causal inference remains uncertain in these studies because (a) they can not rule out the possibility that youth who were on increasingly deviant trajectories self-selected into situations involving more deviancy training and (b) the deviancy training process might be associated with other unmeasured processes (e.g., parental monitoring, school discipline) or youth predispositions (e.g. low self control) that are directly responsible for increases in deviant behavior. Further, this prior research does not link deviancy training to activity structure. Nevertheless, these studies suggest that the deviancy training process begins early, affects both covert and overt conduct problems, and that the effects generalize across settings.

Purpose of the present research

The purpose of the current study is to test the extent to which the level of structure in ASP activities is related to the amount of deviance and reinforcement of deviance (i.e., observed deviancy training). By so doing we hope to provide an empirical basis for understanding the mechanism through which unstructured ASPs might increase delinquent behavior. We adopt a different methodology than has been used in prior research on activity structure, deviancy training and delinquent behavior. Prior research on activity structures and delinquent behavior has used cross-sectional and longitudinal data to establish a link between involvement in unstructured, unsupervised activities with peers and delinquent behavior. This research does not focus on the mechanisms through which the activity involvement produces delinquent behavior. Although prior research on deviancy training demonstrates that an individual's exposure to deviancy training is related to his or her later involvement in delinquent activities or to growth in delinquency, it fails to completely rule out individual-level selection artifacts as an alternative explanation for the observed association between exposure to deviancy training and later deviant behavior. To address these limitations, we employ a different methodology. We measure structure, deviant behavior, and reinforcement of deviance contemporaneously during observations of ASP activities. Further, by analyzing the effects of structure on deviant behaviors across time segments within activities, we are able to rule out all time-stable characteristics of

the activities, observers, programs, and participants that might confound the association of interest. We discuss our specific procedures for handling selection effects in more detail below.

We hypothesize first that the predominant response to deviant behavior by peers will be reinforcing in all types of ASP activities. Second, positive reinforcement of deviance by peers will be more likely to occur during unstructured activities. Third, less structure (both within and between activities) will be related to increased deviant behaviors. Note that because the prior research on deviancy training has focused on peer influences, we limit our formal hypotheses to peers. However, adults may also provide reinforcement for deviant behavior. We therefore present data on group leader responses to deviant behavior in hopes of informing future investigations into the potential role of adult deviancy training on youth misbehavior.

Method

Sample

Data come from a study of the effectiveness of an ASP that incorporated three enhancements – a research-based life skills curriculum (All Stars; Hansen & Dusenbury, 2004), academic assistance, and an attendance incentive component – into an otherwise typical ASP offered by the county (i.e., consisting of sports, crafts, and snack activities). The objective of the larger study was to test the effects of these enhancements on student outcomes.

The All Stars Core curriculum is a 14-session program that attempts to instill beliefs inconsistent with substance use and other risky behaviors while teaching skills necessary for healthy decision-making. Teaching techniques are highly interactive and require much group leader involvement, and parents are encouraged to participate. ASP participants also received the All Stars "Plus" program, which includes 13 lessons designed to reinforce the changes in behaviors and attitudes realized through the Core program as well as teach youth three additional developmental skills. Academic assistance involved homework assistance, workbook activities, and free reading time, guided by adults. The attendance incentive system provided rewards for school and program attendance. For more information on the ASP activities and implementation, see Gottfredson, Cross, Wilson, Connell, & Rorie (2009).

The experimental ASP was located in five urban middle schools that had high populations of minority youth, large numbers of students receiving subsidized meals, and high residential mobility. All students who attended the five participating schools were eligible to register for the ASP, although the school staff was asked to encourage youth at risk for academic or behavioral problems to register. Within each participating school, approximately 100 youth who registered and for whom parental consent was obtained were randomly assigned to either a treatment group that received the ASP or a control group. This paper is based on observations of activities that took place during the program and thus examines only treatment youth ($N = 224$). These youth were predominantly black (69%), about half male (54%), 12 years old (on average), low-income (59% received subsidized meals at school), and most lived in a single-parent home (63%).

To implement the program, we contracted a county-level government agency that specialized in providing recreation and leisure activities (defined as extracurricular activities occurring outside of the school hours that require some effort, including sports, academic clubs, and performance and fine-arts clubs; Wilson, Gottfredson, Cross, Rorie, & Connell, 2009) for youth. This vendor was responsible for managing the day-to-day operations of the program sites, hiring and supervising all program staff, delivering the All Stars and academic assistance services, and providing attendance incentives and leisure activities. The researchers arranged staff training in All Stars and attendance incentives while the vendor provided staff training for all other aspects of the program, including behavior management. Participant recruitment efforts and data collection responsibilities were undertaken by both researchers and the vendor. Researchers conducted on-site observations and administered surveys to youth, while vendor staff entered process data into a web-based management information system each day the programs operated (for more information about implementation quality and fidelity, see Cross, Gottfredson, Wilson, Rorie, & Connell, in press).

The ASP operated for 3 h per day, three days per week, for a total of 96 days during the 2006–2007 school year at each of the five sites. All five sites followed the same daily schedule: The program day began with a brief (approximately 30-minute) period during which students enjoyed a snack together as one group while staff handled administrative tasks. On Tuesdays and Wednesdays, this snack period was followed by an hour and a half block during which students attended academic assistance sessions and All Stars sessions each for 45 min. Students were typically divided into two groups by the group leaders during this period and alternated between the academic and All Stars activities. The last hour of the day was spent on leisure activities, usually sports, crafts, board games, movies, or computer games. At least two different activities were usually offered, and students could choose which to attend. On Thursdays, the entire 3 h of programming was dedicated to leisure activities, with students usually choosing which activities to attend.

The average daily attendance at each site was a function of the total number of students enrolled, the drop-out rate, and the average daily attendance. As reported in Gottfredson et al. (2009), 54% of the treatment sample withdrew from the ASP before the end of the year, and students attended an average of 36 days of the possible 96. The average number of students present per day ranged from 11.6 to 24.2 ($M = 17.0$), and the average number of staff present at each site varied from 2.9 to 3.5 ($M = 3.2$). These factors combined to produce an average student to staff ratio ranging from 4.0 to 7.7 ($M = 5.4$). All activities were supervised by at least one adult.

Activity structure is of interest in this study. We defined structure as the extent to which activities included clear expectations for how students should spend their time, and we classified the activities offered by the ASP into five categories. We expected the level of structure to vary among these types of activities. The five categories of activities include: life skills

instruction (i.e., All Stars); academic activities (e.g., homework assistance and workbook activities); creative recreational activities (e.g., arts and crafts); active recreational activities (e.g., dance, sports); and other activities (e.g., snack, procedural activities, and special event celebrations). The expectations regarding variability in structure across activities were based on the fact that clear plans for how youth would spend their time were built into the academic assistance and life skills segments through the use of a standardized curriculum and specific program materials. The leisure activities (i.e., the creative recreational, active recreational, and other activity categories) were intended to be more student-directed and relaxed. Observation data confirmed that the expected variability in structure occurred – academic and life skills activities were indeed more structured than the leisure activities (see below).

Activities were observed by research assistants, who typically traveled to the sites in pairs, alternating among sites.[1] The observation teams observed four distinct ASP activities during each site visit, usually an All Stars session, an academic assistance session, and two leisure activity sessions. While observers generally split up to observe different activities (for example, one observer watched an All Stars session while the other watched the academic assistance session occurring simultaneously), some activities were observed by two observers.[2,3] When an activity involved a large number of children, observers chose a smaller group of children to watch throughout the observation (generally about five youth) to facilitate recording of behaviors and responses. Most students remained in the activity for the duration of that particular research period, but they sometimes left briefly to use the restroom. Behaviors were observed only for students present in the activity.

A total of 398 discrete activities were observed between October, 2006 and April, 2007. Activities (and observations) varied in length, for an average of 36.4 min ($SD = 13.16$). Observers recorded data for each five-minute interval within each of these activities. The data from the five-minute interval observations serve as the units of analysis in this study. We examine how deviant behavior and responses to deviant behavior change as a function of variations in the level of structure across different five-minute intervals. The total number of intervals was 2896 with an average of 7.28 intervals per discrete activity. These interval-level data were also averaged to create overall activity scores to describe variability across different types of discrete activities. As will be discussed shortly, considerable variability in the measures of interest was observed both between and within discrete activities.

Measures

Deviancy training was measured by observing youth interactions in the ASP. We enlisted the assistance of Tom Dishion to train observers to record behaviors and responses involved in deviancy training. For each five-minute interval in each activity, the observer recorded on a coding sheet the level of structure, any deviant behaviors observed, and responses to those behaviors by peers and group leaders (see Figure A.1. in Appendix A).

Observers coded two types of deviant behaviors: *violence* and *other counternormative* actions.[4] Violence included any threat of, imitation, or actual physically harmful acts against another person (e.g., threatening to kill someone, pretending to hit someone, or actual pushing/shoving). Other counternormative actions included behaviors that were not illegal per se but were considered to be defiant or age-inappropriate (e.g., sexual gestures, talking back to group leaders, cursing).[5] Within these categories, three types of actions were noted: *talking* about deviance, *mocking* deviance (e.g., pretending to do a deviant act), or actual *behavior*.[6] The dependent measures consist of binary indicators of whether or not each behavior of interest occurred in each five-minute interval. When summarizing behaviors at the activity level, we report the proportion of intervals in which each behavior occurred (Table 1). Additionally, we created variables measuring "overall violence" that combined violent talk, mocking, and behavior, and "overall counternormative" which combined counternormative talking and behavior.

[1] To the extent allowable within the constraints of observer availability, observers were assigned randomly to pairs and to sites. However, each semester, two of the observers were paired the entire time. All observer pairs rotated among the five sites.

[2] This occurred when all youth participated in the same activity at the same time. These paired observations account for 117 of the 398 observations. When these activities were delivered in a small area, both observers observed and recorded behavior of the same children. If they took place in larger physical areas, observers recorded data on different youth. Because of the possibility that data from paired observations were not independent, we conducted two sets of analyses, once using the full set of 398 observations and again using a reduced set of 281 observations created by averaging the observations for the two paired observers. Results using the aggregated observations were similar to those based on the full set of observations, with only one difference in results between the two analyses – using the smaller *N*, within-activity structure was not significantly related to violent behavior or counternormative incidents at $p < 0.05$ (see results section). We present the analyses based on independent observations.

[3] Little observer discretion was involved in deciding which activity to observe because there were usually only two activities occurring at any one time, and the observers watched both. On occasions when more than two leisure activities were offered, observers had to make a choice. In these cases, the choice was among several relatively unstructured activities rather than between a structured and an unstructured activity. Hence, it is unlikely that observer discretion influenced the observed distribution of activity structure.

[4] The observers also collected data on substance use and other illegal incidents. These behavior categories, as well as counternormative mocking, were dropped from the analysis when initial investigation revealed that deviant actions of these types were extremely rare in the ASP.

[5] We grant that the definitions of counternormative and violent acts used in this study are subject to different cultural interpretations and normative influences and that they may not be universal, especially in a sample of early adolescents. However, to the extent that we are able to demonstrate that adults and peers respond to the observed behaviors and that the observed behaviors are systematically related to activity structure, we will have provided some evidence for the construct validity of these measures.

[6] Life skills sessions were omitted from analyses of deviant talk. The curriculum encouraged facilitators to stimulate conversation about antisocial behaviors (e.g., drugs, sex, bullying). We determined that talking about such behaviors would not be considered deviant in this context. The number of cases used in analyses of deviant talk was 292 rather than 398.

Table 1
Descriptives of activity structure, deviant behavior, and responses.

Variable	*N*	Mean	SD
Structure	398	2.87	0.92
Overall violence	398	0.22	0.26
Peer response	239	1.30	0.48
Group leader response	234	2.15	0.38
Violent talk[a]	292	0.12	0.18
Peer response	121	1.39	0.57
Group leader response	118	2.18	0.49
Violent mock	398	0.07	0.13
Peer response	125	1.19	0.50
Group leader response	120	2.04	0.35
Violent behavior	398	0.13	0.19
Peer response	175	1.28	0.50
Group leader response	171	2.18	0.39
Overall counternormative	398	0.18	0.23
Peer response	220	1.44	0.51
Group leader response	218	2.32	0.42
Counternormative talk[a]	292	0.13	0.19
Peer response	132	1.33	0.47
Group leader response	131	2.19	0.42
Counternormative behavior	398	0.11	0.17
Peer response	162	1.47	0.54
Group leader response	160	2.38	0.44

Note. Structure ranges from 1 to 5. Levels of deviant behavior range from 0 to 1. Peer and Group Leader responses range from 1 to 3. *N* of cases is lower for peer and group leader responses than for behaviors because responses are recorded only in intervals in which a deviant behavior occurred.

[a] Deviant talk is not analyzed for life skills activities.

Observers coded peer and group leader responses to antisocial acts on a 5-point scale, which was later recoded to three values for simplicity. A value of "1" indicates clear or subtle positive reinforcement (e.g., encouraging or smiling), "2" indicates a neutral response (ignoring or not noticing the act), and "3" indicates clear or subtle negative responses (e.g., frowning in response or chastising the behavior). Peer and group leader responses were recorded in the same five-minute interval in which the deviant behavior was recorded, and were recorded only in those intervals in which a deviant behavior occurred. Responses could come from either one individual or multiple people; if multiple people responded to the behavior, the coder recorded the response closest in time to the behavior.[7]

Structure, the independent variable, was measured with a 5-point scale: "1" represents intervals in which there were no expectations for how youth spend their time in the activity, "2" indicates few expectations for what youth should be doing which are not communicated or not enforced, "3" represents ambiguous structure or a moderate level of expectations which are inadequately communicated, "4" implies there are substantial expectations for how youth spend time although some off-task behavior is allowed, and "5" represents very clear structure in which expectations are clearly defined and consistently enforced. Structure was recorded for every five-minute interval.

Inter-rater reliabilities (IRRs) for behavior coding were conducted at the interval level ($N = 651$ intervals) by correlating the ratings of two people watching the same activity. IRR correlations for behavior rates were: 0.81 for overall violence, 0.66 for violent talk, 0.56 for violent mocking, 0.81 for violent behavior, 0.81 for overall other counternormative incidents, 0.77 for other counternormative talk, and 0.77 for other counternormative behavior. All correlations were significant ($p < 0.01$).

IRRs for group and peer leader responses were calculated using the original five-point rating scale (i.e., before collapsing into three categories). Correlations for peer responses were: 0.58 for overall violence, 0.56 for violent talk, 0.45 for violent mocking, 0.78 for violent behavior, 0.72 for overall other counternormative incidents, 0.64 for other counternormative talk, and 0.80 for other counternormative behavior (all $p < 0.05$). Finally, inter-rater reliabilities for group leader responses were: 0.66 for overall violence, 0.48 for violent talk, 0.53 for violent mocking, 0.98 for violent behavior, 0.65 for overall other counternormative incidents, 0.45 for other counternormative talk, and 0.83 for other counternormative behavior (all $p < 0.01$).[8]

[7] The *number* of responses to a behavior or the *degree of consensus* among the responses might also be related to subsequent behavior of the target youth. Unfortunately, the observers in our study captured only the direction of the most immediate response to each misbehavior.

[8] Although not as high as is customary to establish high inter-rater reliability, all IRR coefficients are based on pairs of observations, some of which involved observations of different children in the same activity (see footnote 2).

Analytic strategy

Peer and group leader responses are first examined at the activity level using analyses of variance (ANOVA) to determine the extent to which responses differ across activity types, which are expected to vary in the amount of structure entailed. Correlations at the interval level are used to assess how responses vary as a function of the level of structure.

To evaluate the association between structure and deviant behavior, Hierarchical Linear Modeling (HLM; Bryk & Raudenbush, 1992) was used to analyze data from observations of five-minute intervals nested in the discrete activities. HLM models the variation in observed deviancy as a function of structure both *between* and *within* activities. The interval-level (level 1) equation uses the Bernoulli link function to handle the dichotomous dependent variable. The equation is

$$\log\left[\text{odds}\left(y_{ij} = 1\right)\right] = \beta_{0j} + \beta_{1j}(x_{ij} - \bar{x}_{.j}) \tag{1}$$

where y_{ij} is the value of the binary observation of deviancy in each of the five-minute intervals within each of the j activities observed, x_{ij} is the level of structure recorded for the interval, β_{1j} is the slope coefficient relating structure to the log of the odds of deviance occurring, and β_{0j} is the intercept value for the activity. By centering structure on its activity mean, we can interpret the intercept as the deviancy level at the mean structure level across all intervals in the activity. The slope coefficient is of special interest in this study because it provides a measure of association between structure and behavior that is not contaminated by time-invariant characteristics of the activity, group leaders, observers, or students in the activity because all of these factors are constant across the time segments within each activity. An additional control for interval number is added to the final model as a check to ensure that the passage of time does not introduce a spurious association between structure and behavior.

The activity-level (level 2) equations are as follows:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}\overline{X}_{.j} + \gamma_{02}W_{j2} + \cdots + \gamma_{0k}W_{jk} + u_{0j} \tag{2}$$

$$\beta_{1j} = \gamma_{10} \tag{3}$$

where β_{0j} and β_{1j} are the intercept and slope coefficient from the level 1 equation, γ_{00} and γ_{10} are the grand mean intercept and slopes, $\overline{X}_{.j}$ is the average structure across all intervals within each of the activities, and W_{jk} includes controls for the number of youth participating in the activity, the start time for the activity, four dummy variables for school and five dummy variables for observer. γ_{01} is the slope coefficient relating average activity structure to the average deviancy level in the activity, and γ_{0k} is a vector of slope coefficients for the control variables. Finally, u_{0j} is the error term for the observation-level random effect on the intercept β_{0j}. Note that the slope coefficient β_{1j} is fixed across activity observations.

Three models are presented. Model 1 is equation (1) above with no level 2 specification. Model 2 adds the overall structure of the activity ($\overline{X}_{.j}$) (equations (2) and (3) above, without control variables W_{jk}). Model 3 adds level 2 control variables as in equations (2) and (3) above as well as a control at level 1 for the interval number. Results from the unit-specific models are reported.

We noted earlier that in individual-level studies, selection artifacts can lead to an overestimation of the effects of activity participation to the extent that unmeasured characteristics of the individual are related both to activity participation and to the behavior of interest. Our study, which uses activities rather than individuals as the unit of analysis, is also subject to selection threats to the extent that unmeasured characteristics of activities are related to the aggregate behavior of youth who participate in the activities.

At least three sources of selection might be operating in our study: (1) A spurious association between structure and misconduct might arise due to over-representation of youth prone to misconduct in unstructured activities. This association might arise if activities that are less structured attract youth who are more prone to engage in misconduct, or if, for example, more delinquent youth chose to participate in the program on Thursdays, when less structured activities were offered. A spurious association might also arise if the program became more structured over time as the more delinquent youth dropped out. (2) Observers might have selected for observation activities that are consistent with our hypotheses while omitting activities that are not. (3) Activity structure might be associated with unmeasured characteristics of the activities that are also related to the outcomes of interest. For example, the size of the program, student-adult ratio, social climate, level of youth engagement, mastery orientation, staff skill and experience at maintaining order, etc. are all potentially important program characteristics that might be associated with structure and that might also influence the behavior of youth in the study.

These potential selection threats were dealt with as follows in our study: Most importantly, we analyze *within-activity* variation in structure and misbehavior. All of the sources of spurious association discussed above apply only to *between-activity* comparisons. That is, if we observe an association between activity structure and misconduct across time segments within a given activity, we will have ruled out all of the time-invariant selection threats because (1) the same participants are present in all time segments of a given activity, (2) observer choice is constant across all time segments, and (3) all unmeasured characteristics of the activity apply equally to all time segments within the activity. Selection threats operate in the within-activity analysis only to the extent that aspects of the organization or climate in the after-school program co-varied across five-minute time segments with structure. This seems unlikely, but we nevertheless include a control variable for interval number in the level 1 equation to rule out the influence of time-varying factors that might be related to interval-level structure.

We noted earlier (footnote 3) that observer choice of activities was not likely to introduce selection bias because very little discretion was involved in selecting activities for observation, and when discretion was exercised it involved a choice among several leisure activities (all of which were relatively unstructured) rather than between a structured and an unstructured activity. Hence, observer discretion is not likely related to activity structure. Also, Gottfredson et al. (2009) reported that student attendance was not related to day of the week, so it is not likely that students more likely to engage in misconduct attended at higher rates on Thursdays.

In addition, we employ explicit statistical controls to help rule out selection threats in our between-activity comparisons. First, we control for the number of youth in the activity, four binary variables for school, five binary variables for observer, and start time for each activity.[9] Second, we conduct a sensitivity analysis to explore potential selection threats due to over-representation of youth prone to misconduct in unstructured activities. Some activities were compulsory (e.g., All Stars and academic assistance) while others (e.g., nearly all recreational activities) were voluntary. At least two different activities were typically offered during leisure time slots, and students were permitted to choose an activity. If more deviancy-prone youth chose to participate in less-structured activities, we would see a spurious correlation between deviancy and structure in the between-activity analyses. To explore the extent to which student choice introduced a spurious correlation between structure and misconduct, we created a selection variable (i.e., required versus voluntary activity). We tested to see if the coefficient for structure varied according to whether students were required to attend the activity or not. Specifically, we added both the selection indicator and a selection by structure interaction term to the model. For those models exhibiting a significant structure by selection interaction, we then ran separate HLM analyses for voluntary and required activities. If the observed structure/misconduct associations in the between-activity analyses were due to delinquency-prone youth selecting into less structured activities, we would expect to observe much stronger associations between structure and deviancy in the activities that permitted student choice than in the compulsory activities.

Results

Activity structure

The average structure for five-minute intervals is 2.87 (SD = 0.92; see Table 1). Structure varies significantly across activities ($p < 0.01$).[10] Activities such as academic assistance ($M = 3.09$) and All Stars ($M = 3.52$) generally involve more focused activities which are actively directed by group leaders, with relatively little student discretion in how to spend time. Conversely, activities of an active recreational nature ($M = 2.93$), arts and craft-type activities ($M = 3.00$) and "other" activities including primarily snack time ($M = 2.04$) offer much more leeway for students to choose what to do.

Responses to deviant behavior

Table 1 shows the average peer and group leader response for each dependent variable. Higher numbers indicate more sanctioning responses. As hypothesized, peer responses to deviant behaviors are predominantly reinforcing, with scores ranging from 1.19 for violent mocking to 1.47 for counternormative behavior. Peer responses are more reinforcing than those of group leaders, who had predominantly neutral responses ranging from 2.04 for violent mocking to 2.38 for other counternormative behavior. Hypothesis 1 is therefore supported.

Table 2 shows the results for 14 tests comparing responses across activity types, separately for peers and group leaders. Peer responses to counternormative talk differ significantly across activity, which vary in the amount of structure they entail as discussed earlier. Peer responses to the overall measure of counternormative behavior also varied significantly by activity type. Post-hoc tests indicate peers are neutral towards counternormative talk in academic activities ($M = 1.60$), but are more likely to react positively to such talk in creative recreational activities ($M = 1.16$). The pattern is similar for the overall counternormative category, but peer responses are also neutral during life skills activities ($M = 1.53$). Group leader responses to counternormative talk differ significantly by activity. They sanction such behavior more often in academic activities ($M = 2.36$) than in creative or active recreational activities ($M = 2.07$ for both). Responses to violence do not vary significantly by activity structure for either peers or group leaders.

Correlations between the observed structure in each five-minute interval and peer and group leader responses to each deviant behavior (for a total of 14 correlations) also suggest an association between structure and reinforcement. Peer responses to violent mocking behaviors ($r = 0.16$), counternormative behaviors ($r = 0.16$), and overall counternormative incidents ($r = 0.12$) exhibited statistically significant positive associations with interval structure. The positive correlations indicate that in more highly-structured intervals, peer responses are more chastising. Group leader responses to counternormative behavior ($r = 0.16$) and overall counternormative actions ($r = 0.12$) are similarly related to structure. No other

[9] We also ran a model controlling for group leader age and gender. Only one out of 35 possible coefficients was significant, which could easily have arisen by chance. Further, the inclusion of these controls did not affect either the within- or between-activity structure coefficients. We therefore omitted these controls from the final models.

[10] A Tukey's-*b* post-hoc test showed that All Stars is significantly more structured and that "other" activities are significantly less structured than all other activities.

Table 2
Average peer and group leader responses to deviance, by activity.

Behavior	Peer response							Group leader response						
	Academic	Creative	Active	Life skills	Other	df^a	F	Academic	Creative	Active	Life skills	Other	df^a	F
Overall violent	1.38	1.33	1.31	1.32	1.24	216	0.44	2.24	2.22	2.12	2.06	2.13	212	1.26
Talk	1.44	1.52	1.21	–	1.38	107	1.41	2.25	2.29	2.14	–	2.08	104	1.03
Mock	1.30	1.17	1.24	1.31	1.06	110	0.92	2.07	2.04	2.01	1.95	2.17	106	1.21
Behavior	1.38	1.20	1.35	1.32	1.21	155	0.78	2.19	2.25	2.16	2.12	2.19	152	0.52
Overall counternormative	1.74	1.38	1.34	1.53	1.32	193	3.90**	2.36	2.26	2.25	2.40	2.31	192	0.96
Talk	1.60	1.16	1.36	–	1.31	110	4.01*	2.36	2.07	2.07	–	2.25	110	3.40*
Behavior	1.74	1.51	1.28	1.53	1.34	141	2.21	2.26	2.35	2.53	2.40	2.40	140	0.94

Notes. Number of cases for each category or behavior is the number of observations in which the behavior occurred. Observations with missing activity information were omitted. The number dropped ranged from 11 to 23 across the different behaviors. Between–observation degrees of freedom = 3 for talking dependent variables, 4 for all other dependent variables.
*$p < 0.05$, **$p < 0.01$.
[a] Within-observation degrees of freedom.

correlations for group leader or peer responses with structure reached conventional levels of statistical significance. These analyses provide partial support for the second hypothesis, which stated that positive reinforcement of deviance would occur more frequently during unstructured activities.

Activity structure and deviant behavior

Fig. 1 shows the average structure rating and the average level of violent behavior (*not* including talk or mocking) as a function of time within activity. In the typical activity, structure increases during the first 10 min of the activity, remains stable until approximately 50 min into the activity, and then declines for those activities that last longer than 50 min. Violent behavior remains relatively stable until approximately 50 min into the activity and then increases.

All behaviors vary significantly both within and between observations. Intra-class correlations (ICCs) for the dependent variables range from 0.22 for violent mocking to 0.30 for overall violence while the ICC for structure is 0.54. These analyses indicate that there is sufficient variability in structure and deviant behavior both between and within activities to justify testing for correlations with structure at both levels.[11]

Next we examine the association between structure and deviant behavior using the multi-level models described earlier. To test whether the association between structure and behavior varies across activities, a randomly-varying error term was added to the slope equation at level 2 (equation (3)). This slope coefficient did not exhibit significant variation for any of the behaviors, thus allowing us to fix the within-activity structure slopes. The results of the three final models (described earlier) are discussed below in terms of the change in predicted probability of the behavior as structure increases from a rating of 3 (indicating ambiguous directions given to youth) to a rating of 5 (indicating clear directions given to youth). Odds ratios and change in predicted probabilities are shown in Table 3.

Model 1 shows a significant association between within-activity structure and violent behavior. The predicted probability of violent behavior when structure is at 3 is 0.10. As structure increases from ambiguous to high structure, the probability of observing violent behavior in the interval decreases from 0.10 to 0.07. We expected all forms of deviance to decrease as structure increased, but the probability of violent talk and overall counternormative incidents *increases* from 0.10 to 0.17 and from 0.16 to 0.20, respectively, as within-activity structure increases from 3 to 5. Violent mocking, counternormative talk, and counternormative behavior are not significantly related to within-activity structure.

Model 2 adds average activity structure to the equation and shows that violent behavior and overall violent incidents are lower in more-structured than in less-structured activities. Specifically, the probability of violent behavior across activities decreases from 0.09 to 0.03 as activity structure increases from 3 to 5. For overall violence, the probability of violent incidents decreases from 0.17 to 0.08 as activity structure increases. Between-activity structure does not significantly predict any form of counternormative behavior in this model. Importantly, the previously-reported within-activity associations with structure are retained in the model 2 analyses.

Model 3 adds controls at level 1 for the interval number (i.e., how far into the activity the measurement was recorded) and at level 2 for start time of the activity, number of youth present, school, and observers.[12] The results do not change substantially in this model. The only difference of note is that the between-activity structure association with overall counternormative incidents becomes significant while its association with within-activity structure becomes nonsignificant. As the structure of the overall activity increases from ambiguous to high structure, the probability of counternormative incidents decreases from 0.10 to 0.06.

[11] Intra-class correlations are calculated with the assumption that the level 1 dichotomous dependent variables are latent variables following the logistic distribution with mean of 0 and variance ($\pi^2/3$). The intra-class correlation for structure is calculated using a normal distribution assumption.
[12] See Appendix B for the coefficients related to the control variables.

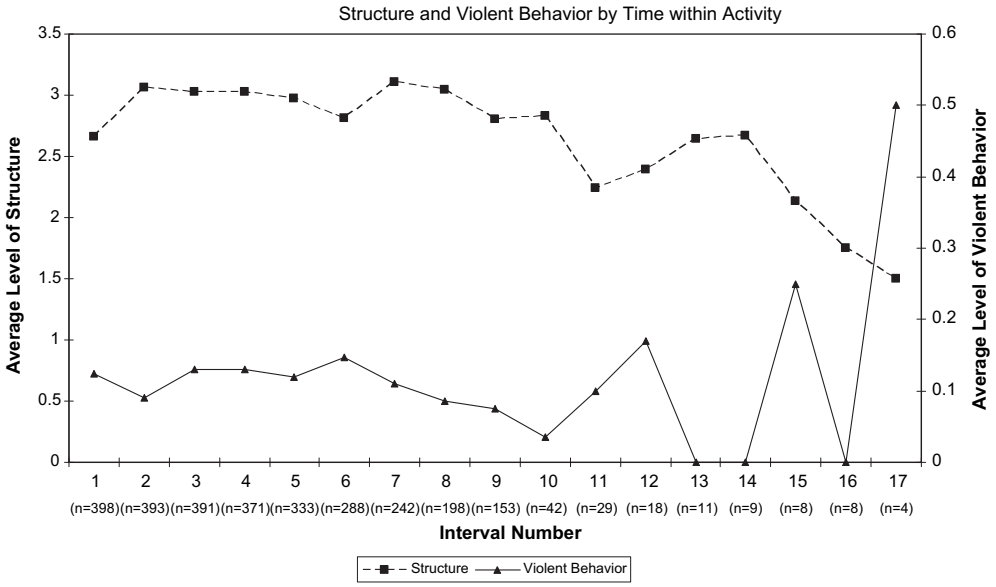

Fig. 1. Structure and violent behavior by time within activity.

Sensitivity analysis

As noted earlier, students were permitted to self-select into certain leisure activities, introducing a possible relationship between youth characteristics and activity structure (in the between-activity analyses only). As a check on the extent to which such selection factors might be influencing the observed between-activity associations, we re-estimated model 3 for those outcomes for which a significant relationship with between-activity structure was found, adding into the level 2 equation a "selection" dummy variable indicating whether the activity was voluntary or compulsory and an interaction term for selection and structure. In this model, structure interacted with selection in the overall violence ($p < 0.03$) and violent behavior ($p < 0.01$) equations, but not in the overall counternormative behavior equation ($p > 0.05$). This suggests that the association between structure and the occurrence of violent incidents varies depending on whether the activity allows for self-selection.

We then ran Model 3 separately for required versus voluntary activities to examine the direction of these interactions. The sensitivity analysis showed that as structure increases in both voluntary and compulsory activities, overall violence and violent behavior decrease. In fact, the association was *stronger* in compulsory activities. For an increase in between-activity structure from ambiguous to high structure, the probability of overall violence decreases from 0.13 to 0.03 in compulsory activities, while the probability of overall violence decreases from 0.16 to 0.13 in voluntary activities. The probability of violent behavior decreased from 0.07 to 0.02 in compulsory activities, and from 0.11 to 0.07 in voluntary activities as between-activity structure increased from 3 to 5. The association between average activity structure and deviant behavior therefore does not appear to be explained by the inclusion of more violence-prone youth in less structured activities.

Discussion

The present research tested the extent to which deviant behavior and its reinforcement are related to structure in after-school activities. It was intended to shed light on results from evaluations of ASPs that have shown that participation in unstructured programs may increase delinquent behavior. It applied prior research on unstructured time use and deviancy training to develop hypotheses relating unstructured time in ASPs to deviancy training and deviant behavior. It extended prior research on unstructured time use by examining the mechanisms through which unstructured ASPs may increase participating youth's negative behaviors, and it extended prior research on deviancy training by applying a different research methodology that allowed for more control over selection artifacts in the examination of deviancy training effects. The research hypothesized that, first, peers positively reinforce deviant behavior most of the time. Results indicated that peer responses to deviance are generally positive, supporting hypothesis 1. Results also showed that group leaders typically do not respond to deviant behavior.[13]

[13] It may be that training received by the ASP program staff affected their responses to deviance. All staff received behavior management training provided by the agency running the program, but this training encouraged staff to respond to misbehavior. Training is therefore unlikely to explain the lack of response to deviance observed in our study. It may be that the training was more effective for some group leaders than others (some group leaders were more likely to ignore misbehavior). Unfortunately, we cannot tie group leaders to specific observations and thus are unable to investigate the influence of group leader characteristics in more detail.

Table 3
Association of structure and deviancy, HLM models.

Behavior and explanatory variables	Model 1		Model 2		Model 3	
	Odds ratio	$\Delta P(Y = 1)$	Odds ratio	$\Delta P(Y = 1)$	Odds ratio	$\Delta P(Y = 1)$
Overall violence						
Within structure (β_{1j})	0.97	−0.01	0.96	−0.01	0.94	−0.02
Between (average) structure (γ_{01})			0.63**	−0.09	0.65**	−0.07
Violent talk						
Within structure (β_{1j})	1.36*	0.07	1.40*	0.07	1.34*	0.05
Between (average) structure (γ_{01})			1.07	0.01	0.95	−0.01
Violent mock						
Within structure (β_{1j})	0.92	−0.01	0.92	−0.01	0.92	−0.01
Between (average) structure (γ_{01})			0.88	−0.01	0.89	−0.01
Violent behavior						
Within structure (β_{1j})	0.82**	−0.03	0.81*	−0.03	0.79**	−0.03
Between (average) structure (γ_{01})			0.59**	−0.06	0.61**	−0.05
Overall counternormative						
Within structure (β_{1j})	1.17*	0.04	1.17*	0.05	1.13	0.03
Between (average) structure (γ_{01})			0.87	−0.03	0.76**	−0.05
Counternormative talk						
Within structure (β_{1j})	1.12	0.03	1.12	0.03	1.06	0.02
Between (average) structure (γ_{01})			0.96	−0.01	0.89	−0.04
Counternormative behavior						
Within structure (β_{1j})	1.14	0.03	1.14	0.02	1.12	0.02
Between (average) structure (γ_{01})			1.04	0.01	0.93	−0.01

Note. ΔP ($Y = 1$) = Change in predicted probabilities of behavior occurrence as structure increases from a rating of 3 (ambiguous structure) to 5 (high structure). Model 1 includes only within-activity structure at the interval level. Model 2 adds the average structure of the activity at level 2. Model 3 adds controls at the interval level for interval number (i.e., how far into the activity the measurement was recorded) and at the activity level for the start time, number of children participating in the activity, school, and observer (coefficients for these control variables are shown in Appendix B). Level 1 and Level 2 *N's* = 2876 and 397 after run-time deletion for all outcomes except violent and counternormative talk. For these outcomes, Level 1 and 2 *N's* = 1985 and 291.
*$p < 0.05$, **$p < 0.01$.

The second hypothesis stated that positive reinforcement of deviance would occur more frequently during unstructured activities. Peer responses for all counternormative actions were predominantly neutral in the academic and life skills activities but were more positive in recreational activities, providing support for the second hypothesis. Group leaders also sanctioned counternormative behaviors more often in academic than in less structured activities. We also observed positive associations at the interval level between structure and peer responses to violent mocking, counternormative behavior, and counternormative incidents overall as well as between structure and group leader responses to counternormative behavior and overall counternormative actions.

Lastly, we hypothesized that less structure would increase the opportunity for deviant behavior to occur. This hypothesis received mixed support. Activities that were more structured on average experienced less overall violent conduct, violent behavior, and overall counternormative actions. The findings for violent behavior were confirmed in the within-activity analyses: As structure increased across time segments, violent behavior decreased. However, as within-activity structure increased, violent talk increased.

While the within-activity association between structure and violent behavior can not be attributed to selection artifacts, the observed between-activity associations might be due to unmeasured selection mechanisms, as described earlier. We explored the extent to which the observed activity-level structure/behavior associations were accounted for by self-selection of youth into activities with differing structure levels and determined that the association between average activity structure and violent/counternormative incidents was not due to this selection mechanism. Selection would have more influence on voluntary than on compulsory activities, but we found that the association between structure and deviant behavior was at least as strong in compulsory activities as in voluntary activities. Students prone to misbehavior may select into less-structured activities, but the relationship between structure and deviance is observed even in activities in which students have no choice but to attend.

Limitations

Although our findings are consistent with a conclusion that structure affects both reinforcement and deviancy, it is important to recognize that the analysis presented here, based on cross-sectional data, can not support causal interpretations. That is, structure and behavior are related to one another in concurrent observations. Thus, although our results are consistent with an interpretation that lower structure leads to increased deviancy training, we cannot rule out the

possibility that structure varies in response to behavior (e.g., violent incidents may result in reduced activity structure). Future research might investigate the extent to which *lagged* structure is associated with behavior in subsequent intervals to determine whether structure early in the activity is related to increasing or decreasing occurrence of behavior later in the activity.

We explored the extent to which unmeasured selection artifacts might have introduced a spurious association between structure and deviant behavior. Selection effects are more likely to have operated at the activity level than at the within-activity interval level. We included controls for factors that might have been associated with structure and behavior at the activity level and conducted sensitivity analyses to rule out the most likely selection mechanism (e.g., more deviancy-prone youths self-selecting into less structured activities). These efforts yielded no evidence that the observed associations were due to selection artifacts. Further, the within-group models (in which time-invariant selection factors are held constant) confirmed the finding that structure is inversely related to violent behavior. Despite these efforts to rule out selection effects, it remains the case that an experimental methodology that randomly assigns youth to activities of varying structure would produce more convincing evidence about deviancy training in unstructured activities.

Our interpretation of results also assumes but does not actually test for a mediating influence of peer and group leader reinforcement. That is, we assume that the association between structure and behavior is due to the reductions in positive reinforcement for problem behaviors observed during more structured activities. To provide an explicit test of this mechanism, we would need data on the order of events within each five-minute period. Future researchers may consider assessing youth at more frequent intervals or measuring the sequencing of events within each period.

Finally, the study data are from a non-random sample of youth from urban middle schools that had high populations of minority youth, large numbers of students receiving subsidized meals, and high mobility. Although neither the schools nor the participating youth were selected in a way that facilitates generalizability of the study results, the population studied here is often considered to be most in need of ASP programs. Our results should provide a basis for subsequent studies whose results will hopefully be more easily generalized to known populations.

Below, we discuss some ideas for future research as well as some implications for policy.

Future research and policy implications

The research presented here speaks directly to the role of structured activities in ASPs, reiterating the importance of incorporating structured activities into after-school programming. Prior research has documented that the level of program structure moderates ASP effectiveness on a variety of outcomes (Gerstenblith et al., 2005; Gottfredson et al., 2007). Research has also shown that the use of evidence-based practices, which are generally structured, is related to program success (Durlak & Weissberg, 2007; Gerstenblith et al., 2005; Gottfredson et al., 2004; Weisman et al., 2002). Here we show that structured activities such as these may reduce problem behaviors by teaching specific skills and prosocial values *as well as* discouraging deviancy training (Lansford, 2006). We demonstrate that peer responses to deviance are primarily positive. However, the positive correlation between structure and sanctioning responses for counternormative behaviors implies that increasing structure may increase youth's likelihood of sanctioning their peers' deviant behaviors.

These findings suggest two implications for ASP practice. First, during unprogrammed or loosely programmed time (in which there is little or no direction), problem behaviors increase. ASPs may be able to increase structure by following a clear plan for activities, more similar to a school day.[14] For example, ASP staff may achieve more structure through the use of manualized programs. Second, our study underscores the importance of staff quality and training. Staffing ASPs with highly-qualified service providers is challenging (Whitebook, Howes, & Phillips, 2004), but staff quality is important to ensure effective programming (Gottfredson et al., 2007). Our findings demonstrate that ASP group leaders regularly failed to respond to misbehavior, but that some group leaders were more likely than others to do so. ASP staff may benefit from training, similar to that of school teachers, in techniques to monitor and respond appropriately to misbehavior.

In addition to these policy recommendations, the findings also suggest two avenues for future research. As mentioned earlier, it would be beneficial to study in more detail the causal ordering of structure and behavior to assess the extent to which behavior influences structure. It is also important to explore possible aggravating effects of increased structure. We found that increases in structure within an activity are associated with increased violent talk. Certain group activities may suppress overtly violent behavior while verbal threats may increase (for example, a fight remains verbal during a highly-structured academic assistance activity but then escalates to physical conflict in the context of a less-structured basketball game). This finding is supported by a negative correlation between violent talk and violent behavior within activities ($r = -0.68$). Future research could profitably investigate what types of ASP activities encourage these behaviors, and what effects, if any, violent talk in the context of ASP activities has on subsequent behaviors.

[14] Of course, it is possible that as more and more ASP activities became structured, misbehavior would "migrate" to the more structured activities. Yet, research on the quality of ASPs shows that there is a great deal of variability in structure across ASP programs. There is much room for increasing structure without fear of reaching an upper limit.

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Appendix. Supplementary data

Supplementary data associated with this article can be found in the online version, at doi:10.1016/j.adolescence.2010.01.007.

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