How Horrible is Hangin' Out"?: Comparing Adolescents' Peer Interactions in Structured and Unstructured Settings

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Although rates of several types of delinquent activity among adolescents have declined in recent years, there is still strong concern about the etiology of such behavior. Drawing on principles of social control theory (Hirschi, 1971), many investigators have postulated that time spent with peers is a strong predictor of delinquency because it marks youth who are not well integrated into conventional social institutions. Although there is evidence to support this assertion (e..g., Engels & Bogt, 2001; Pabon et al., 1992), some researchers contend that the association is actually conditional upon the *type of peers* with whom adolescents associate (time with *delinquent* peers) or the conditions under which peer interaction occurs--specifically, whether or not it is *supervised by adults* (Agnew & Peterson, 1989; Flannery et al., 1999). This study examined the latter of these conditions.

In most cases, investigators have measured time spent with peers and the conditions of interaction rather crudely, by simply asking adolescents to report how much time they spend with peers per week. Because such time estimates are highly unreliable, findings are equivocal. We used the Experience Sampling Method (ESM) technology (Csikszentmihalyi & Larson, 1984) to provide more accurate estimates of how and with whom adolescents spent their time after school and on weekends. The basic research questions were: How strong is the association between delinquent activity and time spent with peers, and to what extent does it depend on whether or not peer interaction is supervised by parents or other adults?

Methods

Overview

Data were drawn from a study of after-school programs targeting economically disadvantaged early adolescents. Participants were 8th graders attending public middle schools in one of three communities across the Unites States; two schools in each community participated. The schools and communities varied considerably in size, but all schools had at least 120 students per grade and were located in communities of at least 100,000 people. The after-school programs were located in the school and operated at least four days a week, but participants' attendance patterns varied dramatically. The average participant attended the program 2 or 3 days a week. Programs targeted economically disadvantaged students but were open to all students in the school, regardless of economic background. Many students were involved in school or community-based youth programs in addition to or instead of the after-school program we targeted for our study. For example, students would attend organized sports practices or programs sponsored by the YMCA or local churches after school.

Sample

The final sample contained 191 youth distributed fairly evenly across the three participating communities. About two-thirds were identified because they participated in a targeted after-school program their school; the remainder were selected randomly from eighth graders not enrolled in the targeted program. In each school, potential respondents were briefed about the study and given information letters and consent forms to take home to parents or guardians. They were informed that they would be paid for participation and that we would select respondents in priority order according to how quickly students returned consent forms. Our objective was to obtain 45 participants in each community who were involved in the targeted after-school program and 25 participants not involved in the targeted program. Once we reached our target we stopped recruiting. Thus, it is not possible to calculate an exact response rate. The cash payment for participating made most students eager to be involved, so participation rates were high.

The sample was evenly split by gender. About one-third (32%) of the sample was African American; slightly over one-third (38%) was European American; 16% was Latino and the remainder came from other ethnic

groups or mixed ethnic backgrounds. About one-fourth of the sample reported annual family incomes of under $20,000. Another quarter indicated a total annual family income between $20,000 and 40,000; only 20% had family incomes higher than $60,000.of earned incomes. Close to one-quarter of respondents indicated that their father had not completed high school; only 20% indicated that their father had a college degree or higher education.

Procedure

The study was conducted in three phases. The first phase involved completion of a 30-minute questionnaire containing measures of a range of constructs. The second phase involved collection of data using Csikszentmihalyi's "experience sampling method" (ESM). For this phase, in each community, eight to 10 students participated in the study at a time. They attended a training session in which they were instructed how to use the signal watches and how to fill out questionnaire booklets. Each watch was programmed for a 7-day period to beep 5 times at random intervals between specified hours (school dismissal and 9 p.m. on weekdays, 10 a.m. and 11 p.m. on weekends); no two watches had the same schedule of signals.

Respondents wore the watch for 7 days, responding immediately (or as soon as possible) to each signal by answering questions in a pocket-sized questionnaire booklet. Respondents received a separate booklet for each day they wore the watch (three booklets on Fridays, to last over the weekend). They checked in with staff daily to turn in booklets, get paid for the questionnaire pages they had completed, and get a booklet for the next day. Respondents participated in this second phase for one week during the fall semester and, again, one week in the spring. On average, participants responded to nearly 90% of the signals (n = 12,143), which is a notably higher response rate than in most previous investigations using the ESM procedure. Phase 2 data from 5 students were discarded because individuals failed to provide credible responses on the signal booklet questionnaires or failed to respond to enough signals.

Between one week and two months after respondents had completed the spring Phase 2 reports, they were given the Phase 1 questionnaire to take a second time. With some exceptions, the same questions were included in the Phase 1 and Phase 3 questionnaires.

Measures

ESM reports. Each time they were signaled, respondents completed a questionnaire indicated where they were, what they were doing, who was doing this activity with them, and who else was around but not involved directly in the activity. They provided open-ended responses about location and activity. Activity partners were indicated on a checklist that contained several categories of possible associates. Trained coders transferred the opened-ended data into discrete categories. One-fourth of these data were double-coded to assess inter-rated reliability. Cohen's kappa coefficient exceeded 0.85 for all pairs of raters on each of the two questions. The activity codes were then collapsed into 5 substantive categories that were used in analyses for this study. *Constructive activities* involved skill development or learning: doing homework; participating in athletics, music, drama community service or religious events; pursuit of hobbies, etc. *Leisure* activities focused on recreational pursuits such as physical exercise, informal sports, board games, and so on. *Socializing* included activities in which the main focus was interaction with peers, family members, or other adults (talking with family or friends, going to parties, etc.). *Unproductive or deviant* activities encompassed passive pursuits such as watching TV, as well as illegal behavior (drug use, delinquent offenses, fighting). The remaining activities were placed in a *miscellaneous* category. Only the primary activity reported at each ESM signal was used for these variables.

Respondents' activity partners were also collapsed into superordinate categories. For this study, we were only concerned with responses in which peers (friends, romantic partners, or other peer associates) were the *primary* activity partner. We differentiated three circumstances: ESM reports in which respondents indicated they were with at least one peer but not in the company of any adults (excepting adults who might have been peripherally present, such as customers at a shopping mall where the adolescent was with friends); reports in which they were interacting with peers but with adult relatives around, and times when they were doing something with peers but with non-related adults present.

For the analyses reported in this study, we converted the ESM reports into percentage scores for each respondent, in order to obtain individual-level (rather than ESM report-level) data. Thus, each respondent received

scores indicating the percentage of ESM reports in which they reported engagement in each of the five activity categories. These percentages summed to 100%. Likewise, we calculated the percentage of ESM reports in which a respondent reported being with just peers, with peers and an adult relative, and with peers and a non-related adult. These activity partner categories did *not* sum to 100% because there were times when respondents were alone or with just adults, or engaged in an activity with both peers and adults.

Questionnaire Data. Several items from self-report questionnaires were used to create scales that were used, primarily, as outcome measures in data analyses. First, was a five-item measure of *school engagement*. On a 4-point Lickert scale, respondents indicated how much they liked going to school, paid attention in class, and learned interesting things. They also completed a four-item scale, also with a 4-point response scale (from "never" to "a lot"), indicating how frequently they engaged in *prosocial behavior* such as helping parents, helping another child at school, or going to religious activities.

Drug use was assessed with an 8-item scale, on which respondents indicated the frequency ("never" to "a lot"; 4-point Lickert scale) with which they used various categories of illicit substances. Using the same response format, respondents also reported their frequency of engaging in *minor delinquency*-- a five-item scale inquiring about damaging property, stealing or shoplifting, physical aggression, selling illegal drugs, and police contacts. Finally, there was a four-item *school misbehavior* scale, indicating how often (same 4-point scale) respondents cut class, got sent to the office, served detention, or had a problem at school that required parental intervention. Because of skewed distributions, log transformations were performed on these three scales before they were subjected to data analyses. Internal consistency alphas on these scales ranged from .71 to .90.

Results

ESM Reports

Nearly 85% of respondents reported being at an organized, supervised program for youth at least once during the after-school hours that they wore the signal watch. Thus, most respondents were involved in programs in addition to or instead of the after-school program targeted for this study. The percentage of signals in which peers were primary activity partners was higher for youth involved in structured programs (39%) than those not involved in such programs (25%). Moreover, youth in programs were more likely than youth not in any programs to report that adults were around when they were interacting with peers (15% vs 4% of signals).

There were only modest differences between respondents who participated in programs versus those who did not in the types of activities youth reported engaging in with peers differed modestly for youth (see Table 1). Youth in programs reported constructive activities a little more often and unproductive activities a little less often. Gender differences also were modest. Most noteworthy was that girls tended to report socializing activities with peers more often than boys; boys reported leisure activities with friends more often than girls.

Base Line Comparisons

To examine how strongly conditions of peer involvement were associated with base line scores on outcome measures, we first examined zero-order correlations between the peer and outcome variables. The three peer interaction variables were virtually unrelated to each other (intercorrelations were less that .05 in absolute value). With th exception of prosocial behavior, which displayed a significant correlation with only one other outcome (school engagement), base line scores on the outcomes measures were modestly intercorrelated (see Table 2). The strongest correlations were among the problem behavior measures, but even these were not strong enough to consider collapsing into a single score.

The amount of unsupervised time spent with peers was substantially correlated with time spent in socializing activities and negatively associated with time in constructive activities (see Table 3). This peer variable had low but statistically significant correlations with time spent in leisure activities *(r* = .18) and unproductive / deviant activities *(r* = .19). Associations between type of activities and the other two categories of peer interaction were routinely low.

For this study, the most important analyses involved correlations between the peer and base line outcome

measures. As can be seen in Table 3, these correlations were generally low; the only associations to reach statistical significance involved time with peers without adult supervision.

For a stronger test of these relationships, we regressed each of the base line outcome scores on the three peer involvement conditions, including gender and program status (whether or not respondents ever attended structured programs) as control and possible moderating variables. Controlling for the other two peer variables, time spent alone with peers without adult supervision displayed significant, positive associations with school misconduct, $t = 2.24$, $p < .05$, minor delinquency, $t = 4.17$, $p < .001$, and drug use, $t = 2.00$, $p < .05$. The same peer variable displayed significant negative associations with school engagement, $t = 3.60$, $p < .001$, and prosocial behavior, $t = 2.50$, $p < .05$. These main effects were qualified by one significant interaction effect: The association between minor delinquency and time spent with peers when no adults were present was stronger for girls than boys, $t = 2.14$, $p < .05$.

Follow-Up Analyses

Follow-up data on the outcome measures were available for analyses of respondents in only one of the three participating communities (data for the other two communities are currently being withheld by the federal government, probably for reasons related to the current administration's fiscal policies). For this reduced sample (n = 63), we were able to repeat the regressions, but using follow-up scores on each outcome as the dependent variable and entering base line scores on the outcome in the first step of a stepwise regression to adjust for initial levels on these variables. Outcome scores were reasonably stable between base line and outcome (correlations between .64 and .70) for school engagement, school misconduct, and minor delinquency; prosocial behavior ($r = .33$) and drug use ($r = .27$) were less stable.

In these analyses, time with peers without adult supervision had a significant effect on school misconduct, $t = 2.90$, $p < .01$; the peer involvement variables accounted for 9% of the variance in the adjusted school misconduct score. Time spent with peers while under the supervision of adult relatives was associated with lower levels of drug use, but more so for boys than girls ($t = 2.01$, $p < .05$). There were no other significant effects in these analyses. However, the reduced sample made it difficult to detect anything but large effects. Analyses of the full sample on base line data suggested that, in most cases, effects involving time spent with peers were modest in magnitude.

Discussion

Because of the size of the sample, especially for follow-up analyses, and the restricted sampling frame of the study, these findings must be viewed as exploratory and tentative. Nevertheless, they do lend support to the notion that the time adolescents spend with peers is, in itself, a poor predictor of problem behavior. A considerable portion of the time adolescents devote to peer interaction occurs within the confines of adult supervision.

The majority of our sample was selected because they were involved in a structured after-school program for middle school youth. This is an important bias to consider in interpreting the study findings because it is likely to inflate the proportion of peer interaction that occurs under the watchful eyes of adults. However, we found that most respondents, whether or not they were registered for the targeted after-school programs, also spent time after school in other structured activities at school or in the community. Thus, it was common for a considerable portion of their out-of-school time with peers to be spent in the company of adults. Moreover, youth who were never involved in structured programs did not differ dramatically from program participants in the ways that they spent time with peers (the various types of activities we examined), although there was a modest tendency for program youth to spend more time in constructive activities and less in unproductive or deviant pursuits with peers.

We focused on adolescents in eighth grade because this is the age at which susceptibility to antisocial pressure from peers reaches it peak (Berndt, 1979). For early adolescents, the after-school hours are also a time of heightened participation in problem behavior. A major question that educators and organizers of community agencies have posed is whether or not structured programs for youth can help moderate the inclination of middle school youth to drift into deviant activity in the hours immediately after school. To the extent that such activity occurs in the company of peers, our findings are instructive.

Contrary to the assumption of many previous studies, time spent with peers, in general, is a poor predictor

of rates of problem (or, for that matter, prosocial) behavior. We found, instead, that only one of our three peer variables was significantly associated with base levels of problem and prosocial behavior: the amount of time youth spent with peers *unsupervised* by adults. Findings from our more sophisticated analyses of follow-up data were consistent with this same conclusion, but the evidence was much less extensive and compelling. This is probably attributable to the reduced sample size available for these analyses. From the perspective of social control theory, these findings admonish investigators to attend not only to who young people's associates are but also to the nature of the bond that adolescents and their friends have to adult institutions. Even for deviantly oriented youth, one simply cannot assume that peer associates are deviantly oriented, and therefor dangerous companions.

Two important questions arise from these findings. First, did conditions of interaction with peers have a significant relationship with problem and prosocial behavior largely because of the element of adult supervision, or because different types of youth were drawn to supervised and unsupervised interactions? It is possible that youth decided (or were persuaded or forced) to pursue different activities when adults were present than when no adults were around. It is also possible, however, that adolescents tended to encounter more prosocial peers in supervised activities than unsupervised settings. Without a more careful catalog of the specific peers that respondents associated with in supervised and unsupervised settings, we would have difficulty knowing which of these two explanations of our findings is more persuasive. This becomes an important topic for future research.

A second issue to pursue in subsequent studies is how generalizable findings are, especially in terms of age. Our study was confined to 8th graders, who are still at a developmental stage in which close adult supervision is expected. The importance of having adults around during peer interaction may not be consistent across adolescence, although we could generate sensible arguments as to why it ought to increase across age as well as why it ought to diminish.

A major strength of this study is that we were able to derive assessments of peer interaction patterns from moment-to-moment evaluations of adolescents' activity. This is a more reliable basis for the types of summary variables that we created than adolescents' more general assessment of peer interactions on a one-time, self-report questionnaire. Each of our respondents gave from 25 to 30 separate "snapshots" of their lives outside of school over a week-long period. This is a much richer source of information than was available in most previous work.

In sum, our findings suggest that "hanging out" may not be as horrible for adolescents as many investigators have contended. An important factor is the interpersonal context in which young people's interactions with peers take place. Limitations in the sample and the availability of follow-up data urge caution in interpreting our results. Nevertheless, they suggest that researchers should be much more careful about how they construe peer interaction and peer influence as it pertains to delinquent and prosocial behavior among adolescents.

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Table 1
Differences Between Youth Involved or Not Involved in Structure Program in the Frequency of Engaging in Various Types of Activities While With Peers

Type of Activity	Involved in Organized Program Yes	No
Constructive	41	34
Unproductive/deviant	12	19
Leisure	11	9
Socializing	12	12
Other	23	26

Note: Figures refer to percentage distribution.

Table 2
Intercorrelations among Base Line Outcome Measures

	Delinquency	Drug use	School misbehavior	School engagement
Delinquency	—			
Drug use	.45[c]	---		
School Misbehavior	.56[c]	.40[c]	---	
School engagement	-.30[b]	-.32[b]	-.28[b]	---
Prosocial behavior	-.18[a]	-.12	-.15	.42[c]

[a] $p < .05$; [b] $p < .01$; [c] $p < .001$.

Table 3
Intercorrelations Between Base Time Spent in Various Activities and Conditions of Peer Involvement

	With peers Unsupervised	Peers and Relative(s)	Peers and Non-relative(s)
Constructive	-.40[c]	.03	.10
Unproductive	.19[b]	-.04	-.15[a]
Leisure	.18[a]	.07	.06
Socializing	.55[c]	-.07	.11
Other	.09	.01	-.15[a]

[a] $p < .05$; [b] $p < .01$; [c] $p < .001$..

Table 4
Intercorrelations Between Base Line Outcome Measures and Conditions of Peer Involvement

	With peers Unsupervised	Peers and Relative(s)	Peers and Non-relative(s)
Delinquency	.17[a]	.02	.00
Drug use	.14	-.06	-.06
School Misbehavior	.05	.07	.22
School engagement	-.27[b]	.02	.12
Prosocial behavior	-.18[a]	.13	.11

[a] $p < .05$; [b] $p < .01$.