

Abstract Title Page
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Title: High School Disciplinary Responses to Student Truancy: Findings from a National Sample

Authors and Affiliations: Jennifer L. Frank, Pennsylvania State University; K. Brigid Flannery & Mary McGrath Kato, University of Oregon.

Abstract Body

Limit 4 pages single-spaced.

Background / Context:

Description of prior research and its intellectual context.

Truancy is a common problem facing nearly all high schools across the nation (Baker, Sigmon, & Nugent, 2001). Although estimating national truancy prevalence rates is difficult due to inconsistent definitions most current national surveys have found that 4.3% of 9th grade students, 7.5% of 10th grade students, 8.7% of 11th grade students, and 13% of 12th grade students reported skipping one or more days of school during the previous 30 days (National Center on School Engagement, 2006; National Center on Education Statistics, 2007). Although a considerable amount of work has been done to understand how individual student-level risk factors relate to truancy, far less work has examined how school responses to student truancy may affect future reoccurrence or growth in truancy rates over time. Rather than focus on individual-student risk factors, we examine the effectiveness of distinctive types of school disciplinary strategies in order to draw conclusions about the impact of such decisions on subsequent truancy rates

Purpose / Objective / Research Question / Focus of Study:

Description of the focus of the research.

The purpose of this study is to address this gap in knowledge through investigation of the following research questions:

- (1) What are the most common types of school disciplinary responses to first-time student truancy offenses in high school settings?;
- (2) Are the most these common types of school disciplinary responses differentially effective in preventing the reoccurrence of truancy?;
- (3) Do school disciplinary responses that prevent the reoccurrence of truancy for most students inhibit truancy rates among at-risk students over time?

Setting:

Description of the research location.

Participants in this study were 8,457 9th grade students who had at least one or more office disciplinary referrals (ODRs) for truancy related-offenses during the first semester of their freshman year. Students were nested within 193 public high schools in the United States. Schools were nested within 150 school districts across 31 states. All data were collected concurrently during the 2007-08 school year. Private schools, alternative/juvenile justice schools, and year-round schools were excluded from analyses. Approximately 17.8% of schools were located in an urban city (n = 34), 23% were suburban (n = 44), 25.7% were located in a town (n=49) and 33.5% were located in a rural locale (n = 64). Average school enrollment was 1,008.21 students (SD = 696.28). The average number of full-time classroom teachers was 61.27 (SD = 39.80) and student-teacher ratios were 16.21 FTE teachers for every student (SD = 3.28). With regard to socio-economic status, 3.2 % were low-poverty schools with 10% or less of the total student population eligible for free or reduced price lunch, 22.3% of schools had between 11-25% eligible for free or reduced price lunch, 54.8% of schools had between 26-50% of students eligible for free or reduced price lunch, 14.6% had 51-75% of students eligible for free or reduced price lunch, and 5.1% were high-poverty schools with more than 75% of students eligible for free or reduced price lunch.

Population / Participants / Subjects:

Description of the participants in the study: who, how many, key features, or characteristics.

Among students included in the sample, 56.3% were male, and 7.8% had an IEP. Approximately 1.1% were Native American, <1% were Asian, 8.8% were Latino, 21.5% were African American, 26.4% were Caucasian, and 39.5% identified as an 'Other' racial category. Race was unknown or missing for 2% of sample participants. Due to the relatively small amounts of missing data, listwise deletion methods were employed.

Intervention / Program / Practice:

Description of the intervention, program, or practice, including details of administration and duration.

NA: Our research did not involve experimental manipulation of a particular intervention/program/practice.

Research Design:

Description of the research design.

Non-experimental

Data Collection and Analysis:

Description of the methods for collecting and analyzing data.

Data Collection

Student Office Disciplinary Referrals (ODRs) were used as the primary data source for our analytic model. Although the validity of ODRs as a direct measure of complex student behavior has been debated (Kern & Manz, 2004, Nelson et al., 2003; Rusby et al., 2007), standardization of referral practices and training greatly enhances the reliability of ODRs (Morrison, Peterson, O'Farrell, & Redding, 2004). To ensure the maximum level of data collection integrity, all schools utilized the same data collection system (*School-wide Information System, SWIS*). Unlike unstructured disciplinary record data systems, SWIS procedures encompass a set of operationally defined and mutually exclusive codes to describe student behavior and disciplinary responses; thus reducing ambiguity commonly associated with this form of extant data (see Tobin et al., 2010 for full listing of code definitions). In addition, each school was required to meet each of the requirements listed in the *SWIS Readiness Checklist* (Todd, Horner & Tobin, 2010) before beginning data collection. The *SWIS Readiness Checklist* was completed by a school-based facilitator who was certified in SWIS procedures and trained to work with school personnel on data collection and decision making procedures. The results of the *SWIS Readiness Checklist* documented school-based facilitators and provided documentation that all schools utilized standardized referral forms compatible with SWIS referral entry, adopted a coherent ODR procedure, engaged in timely data entry, identified a school data facilitator participated in ongoing training related to SWIS procedures to participate.

Analysis

Our approach to analysis proceeded in multiple interconnected stages. First, we examined the frequency with which various disciplinary responses to first-time student truancy were applied. Next, we conducted a series of non-parametric Kaplan-Meier survival analyses followed by logistic regression to explore whether these most common disciplinary responses were differentially effective in preventing the single-event reoccurrence of truancy among different populations of students. We selected logistic regression as an alternative to Cox proportional-hazards regression method because the assumption of proportional hazards over time for the different stratified groups could not be met for these data and such methods can provide

reasonable estimates under such conditions (Klein and Moeschberger, 2003). Finally, we used hierarchical linear modeling (HLM) with full maximum likelihood estimation method to examine whether disciplinary methods effective in preventing single-event reoccurrence were equally effective in reducing the rate or growth in truancy offenses over time. HLM was selected over other analytic options given its flexibility in accommodating repeated measures data with non-equidistant time points.

Findings / Results:

Description of the main findings with specific details.

The most common type of disciplinary response was Detention (26%), followed by In School Suspension (25.5%), Saturday School (16.4%), and Out of School Suspension (10.3%). More proactive forms of discipline that required a higher degree of coordination such as arrangement of Student Conferences (8.4%) and Parent Contact (5.4%) were used, but were far less common. Similarly, forms of discipline that often assume a more personalized approach to student discipline such as Restitution, Loss of Privileges, or Instruction were all exceedingly rare (<1%) at the high school level. Results from this analysis revealed that within the race strata, Asian students had the lowest probability of reoffending (26%; see Table 2). Males had a slightly higher probability of reoffending (43%) as compared to females (41.7%). Students with IEPs also had higher probabilities of truancy recidivism (51.7%) as compared to students without IEPs (41.6%). The average number of days until truancy recidivism also varied within and across stratified groups. Native Americans had the overall shortest latency until the reoccurrence of truancy (M=37.21 days, SE=5.38) followed by Asians (M=44.69 days, SE=13.75), Caucasians (M=45.29 days, SE=1.74), African Americans (M=50.78 days, SE=2.00), and Latinos (M=54.73 days, SE=3.36). Across stratified gender groups, Males had a slightly longer latency until truancy recidivism (M=48.94 days, SE=1.25) as compared to Females (M=46.86 days, SE=1.33). Students with IEPs had a longer latency to recidivism (M=48.28 days, SE=0.96) as compared to students without IEPs (M=45.61 days, SE=2.85). Among the stratified demographic variables tested, only IEP status and student race were significant predictors of the reoccurrence of truancy. Specifically, after controlling for other variables entered into the model, students with IEPs were significantly more likely to have a reoccurrence of truancy as compared to students without IEPs ($\beta=0.497$, $p<0.05$). Native American students were significantly more likely ($\beta=1.105$, $p<0.01$) and Latinos were significantly less likely ($\beta=-0.313$, $p<0.01$) than Caucasians to reoffend. Neither gender nor gender x race or IEP x race interaction terms were significant. In examining the relative effectiveness of each commonly used school discipline response disciplinary, we found that after controlling for student-level characteristics, only two types of school discipline responses, Saturday School and Out of School Suspension, had a significant impact on the probability of future truancy within that school year. Specifically, Saturday school significantly increased the probability of truancy ($\beta=0.175$, $p<0.05$) whereas Out of School Suspension significantly decreased the probability of future truancy ($\beta=-0.265$, $p<0.01$). Given the above findings, we then sought to test whether these same factors predicted growth in student truancy rate over time. Researchers have advocated the use of individual growth curves to study change and have demonstrated that hierarchical linear models (HLM) are particularly well suited to the analysis of individual growth over time (Bryk & Raudenbush, 1992; Francis, Fletcher, Stuebing, Davidson, & Thompson, 1991). With regard to test of intercepts, gender ($\gamma=0.007375$, $p<0.01$), IEP status ($\gamma=0.017695$, $p<0.01$), and being Native American ($\gamma=0.007375$, $p<0.01$) were all significant and positive, suggesting that initial levels of truancy were significantly higher for these groups at time 1. ($\gamma=0.007375$, $p<0.01$) With regard to slopes, or growth over

time, this pattern was reversed, as males ($\gamma=-0.00246$, $p<0.01$) and students with IEPs ($\gamma=-0.000385$, $p<0.01$) had significantly lower rates of growth in truancy over time. Although the locale intercepts were not significant, the slope for urban school status was ($\gamma=-0.000498$, $p<0.05$) suggesting that although there were no locale-based differences at time 1, students attending urban schools had a generally slower rate of growth in the accumulation of truancy events as compared to students in suburban schools. At level 1, the effect of the time-varying covariate OSS on truancy slopes was both positive and significant ($\gamma=1.062208$, $p<0.01$) suggesting that continued increased exposure to OSS over time actually accelerates growth in the accumulation of trancies. The significant negative quadratic term parameter ($\gamma=-0.000082$, $p<0.01$) suggests that the growth in trancies at the individual student level is not linear, but rather assumes a more concave pattern of curvilinear growth over time.

Conclusions:

Description of conclusions, recommendations, and limitations based on findings.

Descriptive analyses of patterns in high school disciplinary practices in this study revealed that high schools currently select from a relatively limited repertoire of school discipline responses to student truancy. The most common of these disciplinary responses are often quite exclusionary, with In School Suspension and Out School Suspension occurring in over 35% of cases. The punitive nature of this pattern of responding is particularly noteworthy since our descriptive analyses focused on exploring how schools responded to first-time truancy offenses recorded for 9th grade students. However, the most common forms of discipline used by schools tend to be those that lend themselves to easy institutionalization within the school and establishment of disciplinary routines. This finding suggests the need for the development of non-exclusionary disciplinary strategies that can also be easily embedded into ongoing school systems and practices.

Our examination of the differential effectiveness of common high school discipline responses on the prevention of future instances of truancy revealed, after controlling for student-level factors, that only two commonly used disciplinary responses had any significant effect on the probability that truancy would reoccur: OSS and Saturday School. Interestingly, the effects on these probabilities were in opposing directions with Saturday School significantly increasing and OSS significantly decreasing the probability of future occurrences of truancy. The finding that the provision of Saturday School in response to truancy increases the probability of future truancy occurrences is consistent with peer deviancy training models (see Dishion & Dodge, 2005 for a review), which maintain that naturally occurring peer interactions promoted through the congregation of problem youth can inadvertently exacerbate the development of subsequent deviant behavior. The finding that OSS significantly decreased the probability of future instances of truancy is also consistent with Zero-Tolerance policy advocates who argue for a firm and consistent response to student infractions. Indeed, on the surface OSS does seem to work at reducing the future reoccurrence of truancy. However, a deeper look gleaned through our growth modeling analyses revealed that while OSS may reduce the probability of recidivism for some, repeated ongoing exposure to OSS has a strong and significant effect on the growth of truancy over time.

Appendices

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Appendix A. References

References are to be in APA version 6 format.

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<http://www.swis.org/index.php?page=resources;rid=10121>

Appendix B. Tables and Figures

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Logistic Model Predicting Reoccurrence of Truancy

Predictor	β	S.E.	Wald	df	p	e^{β} (Odds Ratio)	95% CI for Odds Ratio
Constant	-.261	.78	11.231	1	.001	.771	NA
Gender	-.010	.092	.012	1	.913	.990	1.108- 2.436
IEP	.497	.201	6.106	1	.013	1.643	1.108- 2.436
Race	NA	NA	26.037	5	.001	NA	NA
Native American	1.105	.331	11.128	1	.001	3.019	1.577- 5.779
Asian	-.728	.452	2.591	1	.107	.483	.199-1.172
Latino	-.313	.142	7.306	1	.007	.682	.516-.900
African American	.037	.103	.130	1	.719	1.038	.848-1.269
Other	-.134	.088	2.338	1	.126	.874	.736-1.039
Gender x Race	NA	NA	4.5	5	.478	NA	NA
IEP x Race	NA	NA	6.119	4	.190	NA	NA
Conference	-.142	.089	2.572	1	.109	.867	.729-1.032
Parent Contact	.009	.105	.007	1	.935	1.009	.821-1.239
Saturday School	.175	.070	6.260	1	.012	1.191	1.039- 1.366
In School Suspension	-.026	.062	.175	1	.676	.974	.863-1.100
Out of School Suspension	-.265	.084	9.958	1	.002	.767	.651-.904

Note: $R^2=0.03$ (Cox & Snell), 0.017 (Nagelkerke). Model χ^2 (22)=99.78, $p < 0.05$.

Reference categories for contrasts: Female, No IEP, Caucasian, Detention.

Full Hierarchical Growth Model Predicting Truancy Intercepts

Variable	γ	SE	T-Ratio	df	p
Constant	0.006643	0.008975	0.740	186	0.460
Percent FRPL	-0.17591	0.015670	-1.123	186	0.263
Total Enrollment	0.000002	0.000004	0.466	186	0.641
Percent Minority	-0.002303	0.010356	-0.222	186	0.824
Student-Teacher Ratio	0.000236	0.000774	0.305	186	0.761
Urban	-0.006806	0.006172	-1.103	186	0.272
Rural	-0.002100	0.004990	-0.421	186	0.674
Male	0.007375	0.002355	3.131	8448	<0.01
IEP	0.017695	0.004438	3.988	8448	<0.01
Race					
Native American	0.007375	0.002355	3.131	8448	<0.01
Asian	0.014828	0.015392	0.963	8448	0.336
Latino	0.003289	0.009558	0.344	8448	0.731
African American	0.006231	0.008999	0.692	8448	0.489

Full Hierarchical Growth Model Predicting Truancy Slopes

Variable	γ	SE	T-Ratio	df	p
Constant	0.003781	0.000285	13.283	8448	<0.01
Percent FRPL	-0.000180	0.000809	-0.223	186	0.824
Total Enrollment	0.000000	0.000000	1.167	186	0.245
Percent Minority	-0.000338	0.000490	-0.691	186	0.491
Student-Teacher Ratio	-0.000050	0.000031	-1.616	186	0.491
Urban	-0.000498	0.000214	-2.325	186	< 0.05
Rural	-0.000405	0.000255	-1.588	186	0.114
Male	-0.00246	0.000076	-3.251	8448	< 0.01
IEP	-0.000385	0.000149	-2.587	8448	< 0.01
Race					
Native American	-0.000226	0.000439	0.515	8448	0.606
Asian	0.000667	0.000550	1.212	8448	0.226
Latino	0.000225	0.000287	0.783	8448	0.434
African American	0.000166	0.000271	0.613	8448	0.539
Out of School Suspension	1.062208	0.004560	232.950	380533	<0.001
Quadratic	-0.000082	0.000003	-32.996	380533	<0.01