



CHANGES IN DELINQUENT BEHAVIORS OVER TIME

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Introduction

One of the primary goals of the Dawn Project is to reduce the likelihood that youth will engage in delinquent and/or criminal behaviors. The purpose of this briefing is to assess the change in the number of delinquent behaviors committed by participants in the Dawn Project over time.

Methods

The data reported in the following analyses comes from interviews conducted with the caregivers of young people enrolled in the Dawn Project for the national evaluation. Interviews are conducted at the time of enrollment and at 6-month intervals. Areas assessed and included in this analysis include:

Demographic Information. Participants were asked their age, identified race (coded as 0 = nonwhite; 1 = white), and gender (coded as 1 = male, 2 = female). Referral agency was also used as a predictor (education, child welfare, juvenile justice, and mental health).

Child Behavior Checklist (CBCL). The CBCL (Achenbach, 1991) is used to determine the level of behavioral and psychiatric symptoms in the young people enrolled in the longitudinal evaluation. Caregivers are asked to rate if 103 behavioral and psychiatric symptoms are not at all true, somewhat true, or very true of their child. The CBCL provides ratings of internalizing behaviors (e.g., withdrawal, somatic complaints, and anxiety/depression), externalizing behaviors (e.g., delinquency and aggression), and total problems. Scores on all scales can range from 50 to 100. Scores of 60 points or greater indicate clinically significant impairment. We did not include the delinquency scale in this analysis given the correlation with our outcome (offense number).

Psychological Diagnosis. Participants were diagnosed with a series of psychological disorders at enrollment in the program if they met the criteria. Diagnoses include ADHD, conduct disorder, mood disorder, adjustment disorder, post-traumatic stress disorder, substance use disorder, psychotic disorder, learning disorder, and an autistic spectrum disorder. In addition, a measure of total number of disorders was included in the analysis.

Offense Number. Participants were asked how many offenses they committed in the last six months. Responses were coded (0 = none; 1 = 1 offense; 2 = 2 or more offenses) and then totaled into a summary scale. Nineteen offenses were assessed; examples of items asked include crimes against property, running away, and carrying a weapon.

Analysis. Longitudinal analyses were conducted with hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002). We chose HLM over other analysis methods as HLM allows one to work with cases that may have missing data at one or more time points. Additionally, we were able to predict both initial number of offenses and change in offense number over time.

Results

Intake Offenses. Table 1 represents the total number of offenses committed by participants in the last six months at baseline. We divided the sample by gender in order to see the difference in male and female offending. In general, males admitted to committing more offenses than females. The most common offenses included being a part of a gang, been rowdy in public, damaged property, carried a weapon, broken into a home, and threatened with a weapon.

Table 1. Involvement in delinquent behavior in previous 6 months by gender.

	Never		Once		2 or more	
	Male	Female	Male	Female	Male	Female
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>
Been a part of a gang	89 (82%)	46 (78%)	11 (10%)	6 (10%)	9 (8%)	7 (11%)
Set fire to property	95 (91%)	57 (97%)	5 (4%)	1 (1%)	5 (4%)	1 (1%)
Been rowdy in a public	65 (60%)	39 (66%)	23 (21%)	13 (22%)	21(19%)	7 (11%)
Damaged property	85 (78%)	50 (84%)	13 (11%)	4 (6%)	11 (10%)	5 (8%)
Bought/sold stolen goods	97 (89%)	47 (80%)	5 (4%)	5 (8%)	7 (6%)	7 (11%)
Had sex for money	103 (95%)	53 (90%)	2 (1%)	3 (5%)	4 (3%)	3 (5%)
Carried a weapon	78 (71%)	44 (74%)	18 (16%)	9 (15%)	13 (11%)	6 (10%)
Gotten a traffic ticket	100 (97%)	58 (98%)	3 (2%)	0 (0%)	0 (0%)	1 (1%)
Broken into home	88 (80%)	50 (36%)	12 (11%)	6 (10%)	9 (8%)	3 (5%)
Set fire to hurt others	103 (94%)	57 (96%)	3 (2%)	1 (1%)	3 (2%)	1 (1%)
Gone joyriding in car	98 (90%)	51 (86%)	6 (5%)	6 (10%)	4 (3%)	2 (3%)
Attempt to/stole car	101 (92%)	55 (93%)	6 (5%)	2 (3%)	2 (1%)	2 (3%)
Sold drugs	99 (91%)	50 (84%)	3 (2%)	5 (8%)	6 (5%)	4 (6%)
Threatened with weapon	88 (80%)	47 (79%)	14 (12%)	8 (13%)	7 (6%)	4 (6%)
Threaten for money	106 (97%)	58 (98%)	2 (1%)	0 (0%)	1 (1%)	1 (1%)
Robbed/attempted robbery	103 (94%)	56 (94%)	2 (1%)	1 (1%)	4 (3%)	2 (3%)
Purse snatch	109 (100%)	59(100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Hurt other to have sex	108 (99%)	59 (100%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)
Use gun/beaten other	97 (89%)	55 (93%)	8 (7%)	3 (3%)	4 (3%)	1 (1%)

Number of Intake Offenses. Results of HLM analysis on number of offenses determined that four variables were related to a young person's level of offenses at intake. Young people referred from mental health had committed significantly fewer offenses ($M = 1.4, SD = 2.0$) than young people referred from other agencies ($M = 3.5, SD = 4.8$). However, it should be noted that few young people were referred from mental health agencies (17 subjects or 7% of participants). Gender was also a significant predictor of initial offending status with females reporting fewer offenses at enrollment ($M = 2.9, SD = 4.1$) than males ($M = 3.5, SD = 5.0$). Having a substance use diagnosis was related to higher number of offenses ($M = 4.3, SD = 6.2$ versus $M = 3.2, SD = 4.6$) although few subjects received a substance use diagnosis (8 subjects or 8% of sample). Lastly, a higher score on the aggression subscale of the CBCL was related to more offenses ($\beta = 0.16; p < .01$).

Number of Offenses Over Time. The HLM analysis determined that young people in the Dawn Project had a statistically significant drop in number of offenses over time (see Figure 1). Several variables were significant predictors of change in offense number. Having a substance use diagnosis was related to greater reduction in offense number over time ($\beta = -3.82; p < .01$). The important caveat of this effect is the low number of subjects. Somatic complaints at baseline was a significant predictor of lower offenses over time ($\beta = -0.02; p < .05$). Both gender and anxiety/depression were independent predictors of offense number over time. However, we created an interaction term (Gender x Anxiety/Depression) which was a significant predictor of change in offense number ($\beta = 0.07, p < .01$; see Figure 2). In order to appropriately display the interaction effect, we divided the subjects into a low anxiety/depression group and a high anxiety/depression group. In sum, three of the groups (high anxiety/depression males, low anxiety/depression females, high anxiety/depression females) committed fewer offenses at each time point. Low anxiety/depression males did not change much in terms of number offenses across the time points. Hence, it appears that this group, in particular, committed a similar number of offenses across the intervention time period. Gender interactions with somatic complaints and aggression were not significant.

Figure 1. Number of offenses over 24-month follow-up period.

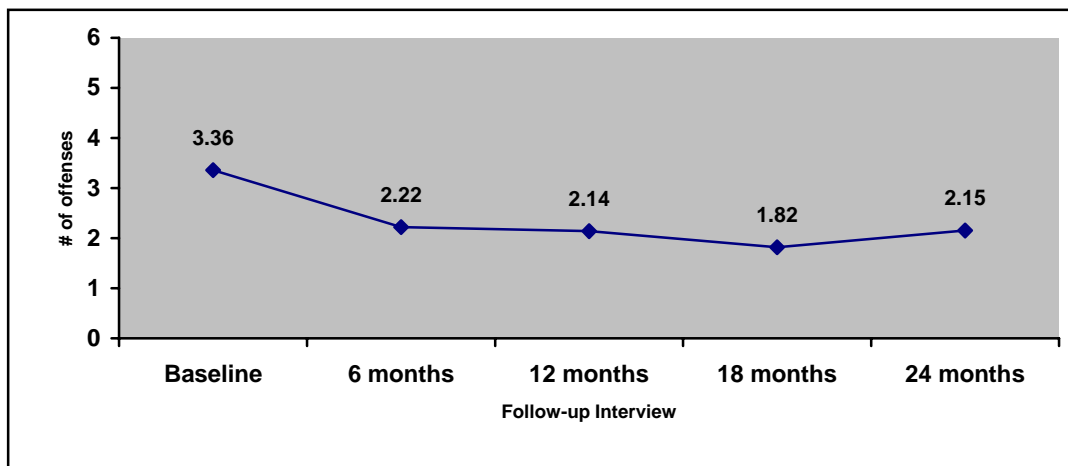
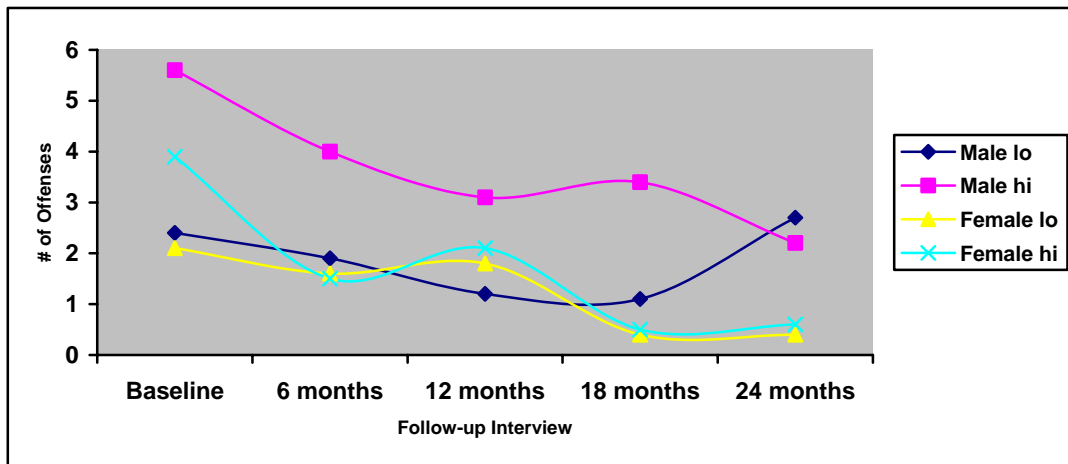


Figure 2. Gender by anxiety/depression interaction on number of offenses over 24-month follow-up period.



Conclusions

In general, the Dawn Project enrolled males committed more offenses than females, which is expected given gender differences in offense patterns. Additionally, the number of offenses decline over time, which would appear to be a positive indication on the effectiveness of the Dawn Project. One of the more interesting statistical effects of this study includes the role of anxiety/depression symptoms and gender in offense number over time. For instance, both males and females with high anxiety/depression “started” at a higher level of offenses than males and females with low anxiety/depression. However, regardless of anxiety/depression status, females in the Dawn Project reduced their number of offenses at a similar rate. This was not true of males. Males with high anxiety/depression reduced their offense number but still committed just over two offenses at 24 months. Low anxiety/depression males started lower and were the only group to commit more offenses at 24 months.

In sum, psychopathology (i.e. depression/anxiety) appears to have a gender specific effect on number of offenses in this population. Presumably, females responded especially well to the Dawn Project resulting in much lowered offense number. It would be useful to assess concurrent growth curves of anxiety/depression symptoms and offense over time by gender. This method would allow us to understand if psychopathology symptoms also decrease over time or if they are directly related to offense and gender effects over time.