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Pathways to Women's Crime: Differences Among Women Convicted of Drug, Violence and Fraud Offenses

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ABSTRACT. The current study was conducted on 60 Israeli female inmates. Our aim was to examine the differences among women convicted for drug, violence, and fraud offenses by socio-demographic variables and self-control and aggression levels. Results revealed that the drug group was characterized by measures attributed to chronic delinquency, and the fraud group was found to fit the pathway to low crime. At the same time, the violence group was not characterized by any of these patterns. The findings were discussed in relation to their theoretical contribution and applicability.

Keywords: drug, female prison inmates, fraud, pathways to crime, women's crime, violence

IN ISRAEL, AS IN OTHER COUNTRIES, while the rate of males under community corrections supervision has remained fairly stable, the rate of women on probation and parole continues to rise. At the same time, official criminal statistics

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indicate a low incidence of crime among women compared to men (Chernoff & Simon, 2000; Corbett, 2007).

In recent decades the combined effects of the women's rights movement, the rise of feminist scholarship and the noted increase in female criminality (Simon & Ahn-Redding, 2005) led to growing body of research on women offenders (Komarovskaya, Loper, & Warren, 2007; Morash & Schram 2002; Morton 2003; Pollock 1999, 2002; Ramoutar & Farrington, 2006; Roberts, 2002; Verona & Carbonell, 2000).

Some researchers proposed relating to women's crime as a separate category, claiming that the observed patterns of male and female criminality suggested gendered pathways to crime—a view that is consistent with developmental and life-course perspectives (Belknap, 2007; Belknap & Holsinger, 2006; Farrington, 2007; Mallicoat, 2007; Simpson, 1989). For example, Daly (1992), by identifying five categories of female offenders, noted that females find their way to felony courts through various trajectories that include life circumstances that are more likely to be experienced by women (e.g., sexual victimization, domestic violence, and taking care of children) than men (See also: Belknap & Holsinger, 2006; Mallicoat, 2007; Langan & Pelissier, 2001; Siegel & Williams, 2003; Simmons, Lehmann, Cobb, & Fowler, 2005).

Several scholars emphasized offense types in their studies. Warren and Rosenbaum (1986) defined categories by frequency and duration of criminal activity while differentiating between women who committed offenses associated with violence and fraud, property offenses and public order offenses. D'Unger, Land and McCall (2002) focused on the level of criminal activity rather than on the type of offense. They proposed the division of female criminality into two main categories: low and high levels of criminal activity (See also: Aalsma & Lapsley, 2001; Silverthorn & Frick, 1999). They relied on measures used to differentiate between male criminality groups (such as age at onset of criminal career, peak age in criminal activity and number of arrests per year).

Similarly, the pathways to crime model (See: Caspi, Lyman, Moffitt, & Silva, 1993; Caspi, Moffitt, Silva, & Krueger, 1994; Mealey, 1995) also proposes two categories: low level of criminality and chronic criminality. This model, based on a study conducted on male and female adolescents, presents different paths of development that lead the individual to crime. The model distinguishes between the two paths by three main distinctions: a) differences in crime measures (age at onset of criminality, number of arrests and continuation of criminal activity into adulthood), b) socio-demographic differences (family background, problematic behavior in childhood, puberty age, school environment at puberty and contacts with delinquent peer groups), and c) personality traits differences (mainly with regard to aggression levels and self-control skills).

In their studies, Caspi and his colleagues (1993, 1994) found two main groups: "adolescence-limited offenders" and "life-course persistent (chronic) offenders." Girls in the first group were characterized by a relatively early onset of

puberty and by involvement in criminal activity during high school that ceased at a later stage. They were found to have relatively high levels of self control and conservatism and low aggression levels. Girls in the life-course persistent (chronic) offenders group were characterized by severely problematic behavior that derived from early childhood, peaked during high school and continued into adulthood. They were involved to a relatively large extent in criminal activity at peak age (around 17) and continued with their criminal careers throughout the course of their lives. Moreover, this group was characterized by relatively high aggression and alienation levels and low levels of conservatism and self control. Girls in both these categories were involved to a greater extent in criminal activity when they attended co-ed schools during puberty than girls who attended single-sex schools.

The pathways to crime model is also supported by other studies (e.g., Aalsma & Lapsley, 2001; Silverthorn & Frick, 1999). For example, Ehrensaft and colleagues (2004) show, *inter alia*, that high aggression levels and low self control among 18-year-old girls may predict their involvement in violent relationships in adulthood. Yet other findings indicated a significant association between dangerous behaviors (e.g. alcohol dependence, violence and unprotected sex), high aggression levels, and low self-control (Caspi et al., 1997), and that puberty interacts with the adolescent's social context (e.g. Beaver & Wright, 2005; Haynie, 2003).

Studies on violence among adult women have focused on women's motives for using violence and on violence toward partners in an intimate relationship (e.g. Archer, 2000; Holtzworth-Munroe, 2005; Kimberly & Allen, 2008; Melton & Belknap, 2003). Some studies found correlations between aggression and violent crimes (Pulkkinen, Virtanen, Klinteberg, & Magnusson, 2000), between impulsiveness and antisocial behavior (Komarovskaya, Loper, & Warren, 2007), and between low self control, drugs and alcohol use (Lopez-Torrecillas, Garcia, Garcia, Izquierdo, & Sanchez-Barrera, 2000). Most of these studies, however, did not relate to the connection between the factors that motivated these women to violate the law and offense types. In other words, the paths to crime among female prison inmates have not been examined.

In the current study, an attempt was made to combine the distinction made by Warren and Rosenbaum, (1986), who (as aforementioned) defined categories of female offenders by offense types, frequency and duration of criminal activity, and the distinction based on the pathways to crime model (Caspi et al., 1993, 1994; Mealey, 1995). We examined the differences among three groups of female prison inmates: women convicted of violence offenses, women convicted of drugs offenses and women convicted of fraud. An attempt was made to distinguish between two categories, chronic and low crime levels, according to the three main distinctions proposed in the pathways to crime model—socio-demographic factors, differences in crime measures, and personality trait differences.

Our hypothesis was that female prison inmates who committed violence or drug crimes would belong to the chronic offenders' group, while those involved

in fraud crimes would belong to the low crime group. Accordingly, we expected that female prison inmates who committed violence or drug crimes had reached puberty earlier than other groups and had been subject to social influence (contact with delinquent peers) at puberty age. The age of first offense and first arrest for these women would be younger, they would have lower family backgrounds, more child abuse and childhood behavior problems, and, in terms of personality traits, they would have lower self-control and higher aggression levels. No differences were expected between inmates who committed violence and drug crimes regarding self-control levels. We expected both groups to have low levels of self-control. In contrast, we expected that the violence group would have higher levels of aggression than the drug group. In addition, we expected prison inmates involved in fraud crimes to have reached puberty later than other groups, to have had little or no contact with delinquent peers at puberty age, to have committed first offense at an older age, to be older when first arrest was made, to have better family backgrounds, less child abuse and childhood behavior problems, and to have distinct personality traits different to other groups.

Method

Participants

The study was conducted on 60 female criminal prison inmates. There were 120 female prison inmates at the time the study was conducted. Female prison inmates who were not Hebrew speakers or who were serving sentences for crimes against the state did not take part in the study (it should be noted that as the study was conducted in Israel's only women's prison facility, the prisoner population is diverse and includes pre-trial inmates, illegal foreign workers, security prisoners, etc.).

The participants were divided into three groups by the type of offense they committed: violence crimes, drug crimes, and crimes of fraud and embezzlement (hereinafter: "fraud crimes"). The division into groups by offense type was based on official court and prison data and on self-reports of the participants. In this specific study, the women classified as fraud offenders were verified by prison authorities as having never used drugs. To safeguard the inmates' privacy rights, permission was granted solely with regard to viewing the information pertaining to their offenses.

The violence crimes group (hereinafter: violence offenders) consisted of 23 women (age: $M = 35.83$; $SD = 10.19$). All were convicted for crimes of violence defined by Israeli law as severe (assault, manslaughter, murder). Twenty-two of them harmed a family member, spouse, or a person with whom she was involved in an intimate relationship. Only one inmate was convicted of violence involving a person with whom she had no familial or intimate relations (armed

robbery in the home of a senior citizen together with her life-partner) (for more details see the result section).

The second group included 13 women serving sentences for fraud crimes (hereinafter: fraud offenders) (age: $M = 46.46$; $SD = 7.77$). Crimes committed by the women in this group included check forgery, identity theft, and appropriation of funds at their workplace. According to the inmates' self-reports, and from information obtained from the prison authorities, none of the women in either of these groups were drug users. They resided in a section of the prison (called "NES"—a Hebrew acronym for "drug-free").

The third group consisted of 24 women serving sentences for offenses related to drug dealing and use (hereinafter: drug offenders) (age: $M = 31.33$; $SD = 8.90$). All the women in this group described themselves as drug addicts. The offenders were not provided with any compensation for participation in the study.

Measures

Socio-demographic questionnaire. The questionnaire was designed specifically for the purposes of this study based on items used in studies that examined pathways to crime (See Caspi et al., 1993, 1994; Mealey, 1995). It consisted of general questions on age, family status, number of children, education, number of siblings, as well as a) questions relating to the subject's childhood and family background (e.g., whether you spent your childhood in or out of your parent's home, whether any of your close family members [parents, grandparents, siblings] were involved in any way in criminal behavior, the family's financial circumstances [poor vs. good], mental illnesses in the family, and whether the subject had suffered from physical, sexual, or emotional abuse in childhood; b) questions relating to age of first menstruation, whether she attended school at the time, whether it was a coed or single-sex school, social influences at school during puberty, and whether she was in contact with delinquent peers and/or demonstrated unusual or problematic behavior (e.g., at onset of puberty, were you still in school? If so, was this a coed school [boys and girls] or a single-sex [girls only] school?); c) questions relating to crime measures: age of first offense (self-reported), age of first arrest, reason for current arrest, criminal past.

Multidimensional Personality Questionnaire (MPQ). The original questionnaire (Tellegen, 1982; Patrick, Curtin, & Tellegen, 2002) contains 11 different subscales, including self control (Cronbach's alpha = .85) and aggression (Cronbach's alpha = .81). The MPQ has known construct validity. The factor structure of the MPQ has been validated with a factor analysis by Krueger (2000). Other research found correspondences between a self-report of the MPQ trait scores and observer ratings (Harkness, Tellegen, & Waller, 1995). In addition,

it has been related with delinquent behavior (Krueger et al., 1994). (For more details, see Patrick, Curtin, & Tellegen, 2002).

The MPQ was translated into Hebrew. The cross-cultural stability of the questionnaire's factorial structure was studied by comparing Israeli and American samples. Internal consistency analyses demonstrated satisfactory reliability of the Hebrew MPQ's scales (Ben-Porath, Almagor, Hoffman-Chemi, & Tellegen, 1995). In the present study, we used two subscales: Self Control and Aggression. The control subscale consisted of 24 items (e.g., *Before I enter into a new situation, I like to find out what I can expect from it).* The internal consistency for the scale was $\alpha = .85$. The Aggression subscale consisted of 20 items (e.g. *When I get angry I want to hit someone).* The internal consistency for the scale was $\alpha = .83$. Both values represent acceptable internal consistencies, higher than .70 (Nunnally & Bernstein, 1994). For each item the participants were required to reply "Correct" (1) or "Incorrect" (0) with regard to the description presented in the item.

Procedure

Questionnaires were distributed to participants in the prison after coordination with the prison authorities. All participants first completed the socio-demographic questionnaire before answering the multidimensional personality questionnaire.

The questionnaires were distributed to each participant individually in a place that guaranteed privacy and anonymity. Before completing the questionnaires, the participants were told that the aim of the study was to expand on existing knowledge about female prison inmates in Israel, that the questionnaires were anonymous and that they would be used for the purposes of the study only. They were also told that they were under no obligation to take part in the study. All inmates who agreed to participate in the study signed a letter of consent to that effect. A total of 65 women took part in the study. Five questionnaires were disqualified for being partially completed. The data was analyzed with regard to 60 inmates who completed the questionnaire.

Results

A significant difference was found with regard to the participants' ages ($F(2, 57) = 11.44, p < .001$). The fraud offenders were older than the two other groups who were not different from each other. A significant difference was also found with regard to family status ($\chi^2 (2) = 11.22, p < .01$). While most of the violence and drug offenders were single (unmarried) (39.1% and 65.2% respectively), most of the fraud offenders were separated or divorced (53.8%). No significant differences were found with regard to the percentage of women who were mothers, although the percentage of mothers in the fraud group was higher (76.9%) compared to the percentage of mothers in the violence and drug groups

(68.2% and 41.7% respectively). Another significant finding points to differences in the participants' educational levels (χ^2 (2) $= 17.5$, $p < .001$). Most of the fraud offenders were more educated (83.3% had higher education) compared to the violence and drug offenders (13.6% and 16.7% respectively).

Differences Among the Groups by Socio-Demographic Variables

Chi-square analyses, analyses of variance and Scheffe post-hoc tests were conducted to compare the groups by socio-demographic variables that included references to childhood and family of origin, to puberty age (menstruation date) and social influences and to crime measures.

Childhood and family of origin. Table 1 presents the results of Chi-square analyses of the differences among the research groups by family of origin data.

Table 1 shows that more female offenders convicted of drug-related crimes reported spending time out of their parents' home during childhood (other relatives, institutions, foster families) and more reported being victims of child abuse than the other groups. Furthermore, as opposed to drug and violence offenders, fraud offenders did not report being exposed at all to drug and alcohol abuse in their immediate family. No differences were found for economic status, family involvement in crime, and mental illness in the family.

Age of puberty (age of onset of menstruation) and social influences. The average age of the reported onset of menstruation for all the participants was 13.30 ($SD = 1.70$), with no significant differences among the groups ($F(2, 54) = 1.09$,

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TABLE 1. Differences in Family of Origin Between the Research Groups ($N = 60$)

		Violence		Drug		Fraud		Difference
		N	%	N	%	N	%	$\chi^2(2)$
Childhood stay	Parent's home	19	82.6	11	45.8	10	76.9	7.80*
Economic status	Good	19	82.6	14	60.9	12	92.3	5.28
Involvement in crime	Yes	5	21.7	9	37.5	1	7.7	4.14
Drugs and alcohol	Yes	6	26.1	11	45.8	0	0.0	8.67*
Mental illness	Yes	3	13.0	4	16.7	0	0.0	2.30
Abuse	Yes	7	30.4	13	56.5	2	15.4	6.65*

*$p < .05$, Kruskal-Wallis tests.

TABLE 2. Differences in Puberty and Social Influences Between the Research Groups ($N = 60$)

		Violence		Drug		Fraud		Difference
		N	%	N	%	N	%	χ^2 (2)
School attendance at the start of menstruating	Yes	18	78.3	21	87.5	13	100	5.53
Type of school	Girls only	2	10.5	4	18.2	0	0.0	2.53
Contact with delinquent peer group	Yes	4	18.2	15	65.2	1	7.7	16.05**
Where you a problematic child?	Yes	6	26.1	18	75	1	7.7	19.12***
Did others regard you as a problematic child?	Yes	5	21.7	12	52.2	1	7.7	8.96*
Did you behave in an unusual manner?	Yes	5	21.7	12	50	1	7.7	8.26*

*$p < .05$, **$p < .01$, ***$p < .001$, Kruskal-Wallis tests.

$\eta^2 = .04$). Table 2 presents the results of Chi-square analyses of the differences among the research groups by circumstances of puberty and social influences.

Table 2 shows that the vast majority of the participants reported attending school at the time of their first menstruation, regardless of the type of offense or type of school they attended (single-sex compared to coed). No group differences were found for these two variables: school attendance at the start of menstruating and type of school. Nevertheless, the drug offenders described themselves to a greater extent, compared to the other two groups, as problematic children who behaved in an unusual manner (ran away from home, wandered the streets, abused animals, etc.) and also reported that they were even viewed as problematic children in the environment in which they grew up. In addition, the drug offenders reported more that the others on contact with delinquent peer groups.

Crime Measures

In order to test the hypothesis with regard low or chronic crime path categorization in accordance with the pathways to crime model, the following measures were examined: age at first offense (by self-report), age at first arrest and overall number of arrests (from prison authority records). As the intercorrelations between them range from $r = -.35$ ($p < .01$, between age at first offense and overall number of arrests) to $r = .89$ ($p < .001$, between age at first offense and age at first arrest) a multivaraite analysis of variance of crime measures between the different groups, with Scheffe post-hoc analyses, was conducted. The analysis was significant: $F(6, 102) = 3.88, p < .01, \eta^2 = .21$.

The analysis indicates that fraud offenders committed their first offense at a later age ($M = 35.82$, $SD = 12.07$) than drug offenders ($M = 20.57$, $SD = 7.88$) ($F(2, 54) = 8.84$, $p < .001$, $\eta^2 = .27$). Age at first offense for violence offenders ($M = 29.29$, $SD = 12.04$) was in between. Similarly, fraud offenders were first arrested at a later age ($M = 38.54$, $SD = 13.04$) than drug offenders ($M = 23.33$, $SD = 7.99$) ($F(2, 54) = 9.49$, $p < .001$, $\eta^2 = .25$). Age at first arrest for violence offenders ($M = 31.00$, $SD = 10.83$) was in between. Drug offenders were arrested more times ($M = 2.63$, $SD = 2.00$) that violence offenders ($M = 1.22$, $SD = 0.42$) ($F(2, 54) = 5.85$, $p < .01$, $\eta^2 = .17$). Number of arrests for the fraud offenders ($M = 2.00$, $SD = 1.22$) was in between.

As contact with delinquent peer group is mentioned in the pathways to crime model as an important factor in the classification of crime as chronic compared to low, a multivariate analysis of variance was conducted to examine the differences between the groups with reference to the participants who had and didn't have contact with delinquent peer groups. The analysis was significant: $F (3, 47) = 4.40$, $p < .01$, $\eta^2 = .23$. Differences were found between these two groups with regard to the age at first offense ($F(1, 48) = 13.60$, $p < .001$, $\eta^2 = .22$), age at first arrest ($F(1, 48) = 6.69$, $p < .05$, $\eta^2 = .11$) and the number of arrests ($F(1, 48) = 6.66$, $p < .05$, $\eta^2 = .08$). Participants with no delinquent peer group reported their first offense at mean age $= 30.84$ ($SD = 11.24$), their first arrest at mean age $= 32.03$ ($SD = 11.96$), and mean of 1.68 arrests ($SD = 1.35$). Participants with a delinquent peer group reported their first offense at age $= 18.50$ ($SD = 5.57$), their first arrest at age $= 21.67$ ($SD = 7.10$), and mean of 2.56 arrests ($SD = 1.85$).

Another important variable noted in the models was problematic behavior in childhood. As the variable ranged from 0 to 4 (being composed of four dichotomized variables), with 50% of the sample receiving a 0, spearman correlations were examined between problematic behavior in childhood and crime measures - age at first offense, age at first arrest and number of arrests. Findings indicated that the more problematic the childhood behavior of the subject, the younger their age was at first offense ($-.70$, $p < .001$), at first arrest ($-.64$, $p < .001$) and the higher was the number of arrests ($.39$, $p < .01$).

Differences Among the Groups by Self Control and Aggression

A negative correlation was found between aggression and self-control levels ($r = -.46$, $p < .001$), showing that the higher the aggression level the lower the level of self control. A multivariate analysis of variance was thus conducted to examine the hypothesis with regard to the differences among the research groups in levels of self control and aggression. The analysis was significant: $F (4, 110) = 4.51$, $p < .01$, $\eta^2 = .16$. They revealed that self-control was higher for the violence offenders ($M = 17.45$, $SD = 3.78$) and the fraud offenders ($M = 16.50$, $SD = 5.84$) than for the drug offenders ($M = 12.43$, $SD = 4.35$)

$(F(2, 57) = 8.68, p < .001, \eta^2 = .23)$. It further revealed that aggression was higher for the drug offenders ($M = 6.96$, $SD = 4.30$) than for the violence offenders ($M = 4.09$, $SD = 3.17$) and the fraud offenders ($M = 3.25$, $SD = 3.39$) $(F(2, 57) = 5.17, p < .05, \eta^2 = .16)$. That is, drug offenders demonstrated lower levels of self-control and higher levels of aggression compared to the two other groups (Scheffe post-hoc analyses).

Associations Between the Predictor Variables

Correlations between self-control and aggression and the study variables appear in Table 3. Due to the multiple tests conducted Bonferroni adjustments were applied.

The table shows that participants, who reported drug use and addiction, as well as problematic behavior in childhood and lower economic status, were lower on self control. Reported drug use was associated with higher aggression.

Table 4 summarizes the major trends in the results of this study. Please note that this categorization may be somewhat general, but due to the many variables included in this study, it may help to present the overall picture.

Due to the intercorrelations between the predictors of crime in this study and the trends detected in Table 4, an exploratory factor analysis was conducted with the aim of developing composite scores for these variables. As the variables have different ranges, Z scores were computed and an exploratory factor analysis was conducted

TABLE 3. Pearson Correlations Between Self Control and Aggression and Other Study Variables ($N = 60$)

	Self control	Aggression
Age	.15	−.28
Education	.23	−.26
Age at first offense	.16	−.28
Age at first arrest	.17	−.32
Number of arrests	−.23	.29
Drug use	−.44***	.42***
Drug addict	−.53***	.36
Childhood behavior problems	−.39**	.30
Economic status	.39**	−.15
Childhood stay	.28	−.12

$*p < .05, **p < .01, ***p < .001$.
Note. Education ($0 =$ up to 8 years, $1 =$ over 8 years), Drug use, drug addict ($0 =$ no, $1 =$ yes), childhood behavior problems (ordinal 0-4, spearman correlation), economic status ($0 =$ poor, $1 =$ good), Childhood stay ($0 =$ out of placement, $1 =$ parents' home).

TABLE 4. Major Differences Between the Research Groups ($N = 60$)

	Violence	Drug	Fraud
Education	Lower	Lower	Higher
Childhood stay	Mainly home	Home and out of home	Mainly home
Addiction in family of origin	Lower	Higher	Lower
Abused as a child	Lower	Higher	Lower
Contact with delin-quent peer group	Lower	Higher	Lower
Problem child	Lower	Higher	Lower
Age at first offense	Moderate	Lower	Higher
Age at first arrest	Moderate	Lower	Higher
Number of arrests	Lower	Higher	Moderate
Self control	Higher	Lower	Higher
Aggression	Lower	Higher	Lower

with Varimax Rotation and the criterion of Eigenvalue greater than 1. Three factors emerged that accounted for 63.96% of the variance (Eigenvalues = 3.07, 1.70, 1.64). The first factor included the variables: childhood stay, problem child, age at first offense, age at first arrest and number of arrests (loadings range from −.91 to .71). The second factor included education, self-control, and aggression (loadings range from −.59 to .80), and the third included addiction in family of origin and being abused as a child (loadings range from .59 to .85).

Three composite scores were computed according to loadings of the variables on each factor. The first factor was labeled "crime related predictors" and its score ranged from −5.90 to 5.74 ($M = 0.23$, $SD = 2.98$)—the higher the score, the more pronounced the predictors (childhood stay out of home, problem child, lower age at first offense, lower age at first arrest and more arrests). Analysis of variance revealed that the composite "crime related predictors" was higher for the drug offenders ($M = 2.08$, $SD = 2.07$) than for both the violent ($M = −0.96$, $SD = 2.69$) and fraud ($M = −1.81$, $SD = 2.93$) offenders ($F(2, 47) = 7.18$, $p < .01$, $\eta^2 = .23$).

The second composite was labeled "personality characteristics," ranging from −2.55 to 4.02 ($M = 0.01$, $SD = 1.54$), the higher the score, the more pronounced the predictors (lower education, lower self-control, and higher aggression). Analysis of variance showed that the composite "personality characteristics" was higher for the drug offenders ($M = 0.78$, $SD = 1.53$) than for the fraud offenders ($M = −0.89$, $SD = 1.25$), with the violent offenders being in between ($M = −0.37$, $SD = 1.34$) ($F(2, 54) = 5.47$, $p < .01$, $\eta^2 = .17$).

The third composite was labeled "family of origin", ranging from -1.02 to 2.02 ($M = -0.02$, $SD = 1.21$), the higher the score the more pronounced the predictors (addiction and child abuse in the family of origin). Analysis of variance revealed that the composite "family of origin" was higher for the drug offenders ($M = 0.60$, $SD = 1.20$) than for the fraud offenders ($M = -0.75$, $SD = 0.65$), with the violent offenders being in between ($M = -0.15$, $SD = 1.21$) and ($F(2, 54) = 3.81$, $p < .05$, $\eta^2 = .12$).

In sum, the drug offenders were the highest on all three composites while the fraud offenders were the lowest. These composites emphasize the differences found between the fraud offenders and the other groups, and while drug offenders matched the "typical offender" in all categories, the fraud offenders were unique in all aspects—personality, family and crime.

Discussion

The current study examined the differences among three groups of female prison inmates categorized according to the offense type for which they were convicted: violence offenders, drug offenders and fraud offenders. The differences among the groups were examined according to the pathways to crime model (Caspi, et al., 1993, 1994; Warren & Rosenbaum, 1986).

Findings point to an association between chronic delinquency (as described in the pathways to crime model) and women classified as drug offenders. The association is reflected both with regard to crime measures and the circumstances that led to this path. Women in this group committed their first crime at a relatively earlier age, were arrested for the first time at an early age and had more arrests than the other female prison inmates. Regarding the circumstances that led to crime, offenders in this group spent a greater part of their childhood away from home (with other relatives, in institutions, in foster families, etc.), were more exposed to drugs and alcohol, and more of them suffered abuse compared to the other inmates. Women in this group also demonstrated more problematic behavior in childhood (ran away from home, wandered the streets, abused animals, etc.), and were in contact to a greater extent with delinquent peer groups. These variables are all mentioned in the pathways to crime model as increasing the chances of belonging to the chronic offenders group (Caspi et al., 1993).

Our findings also support the notion that exposure to sexual abuse and/or suffering abuse and trauma during childhood, drug use, and family conflict reflect significant differential pathways for females (Belknap & Holsinger, 2006; Mallicoat, 2007) and mostly described female drug offenders (e.g. Langan & Pelssier, 2001; Miller, Downs & Testa, 1993; Westermeyer & Boedicker, 2000; Widom, Schuck & White, 2006).

Support for the assumption that female drug offenders are more likely to belong to the chronic delinquents' group can also be seen in the significant

positive correlation found between high aggression levels and drug use on the one hand, and self-definition by the women as being addicted to drugs on the other.

This is in addition to low self-control and high aggression levels found among women in this group. The importance of self-control and aggression as distinguishing factors for criminals, both according to the pathways to crime model and in general, is supported by findings in a number of studies; and the positive correlation between self-control and drug abuse is well documented in the body of research literature (Covington, 1985; Lopez-Torrecillas et al., 2000).

Another association found by the pathways to crime model relates to the low delinquency (fraud offenders) category. Women inmates in this group were much older than those in the other groups and they also had the oldest average age of first offense (35 years old). Thus, this group appears to comprise of very late onset adults convicted of forgery, identity theft, and/or appropriation of funds, who apparently had a decent childhood (only a few of them had suffered abuse during childhood), no criminal history, no involvement with drugs or alcohol, and no social connections with delinquent peer groups. These variables are all mentioned in the pathways to crime model and indicate belonging to the low delinquency category (Caspi, et al., 1993, 1994; Warren & Rosenbaum, 1986). This is coupled with the high self-control and low aggression levels found to characterize this group, and which are also described in the pathways to crime model as distinguishing variables.

To the best of our knowledge, and from a review of the literature, little is known about the extent and nature of the involvement of women in fraud offenses (Goldstraw, Smith, & Sakurai, 2005). Similar to our findings, however, fraud offenders were found to be differentiated from "ordinary" delinquents: They were relatively more highly educated, had a history of steady employment, and were relatively older than other criminals (Goldstraw, Smith, & Sakurai, 2005; Wheeler, Mann, & Sarat, 1988). Regarding crime measures, fraud offenders committed their first crime at a later age, committed crimes with relatively less frequency than other offenders (Weisburd, Chayet, & Waring, 1990) and were characterized as having fewer arrests than other offenders (Benson & Moore, 1992). Daly (1992, 1994) described these women as more socially and economically advantaged, as having no extensive criminal history or prior victimization experiences, and with no recognizable substance abuse problems. Reisig, Holtfreter, and Morash (2006) described it as the economically motivated pathway.

Contrary to expectations, the violence group was not characterized by any of the two paths (chronic or low delinquency). Moreover, with regard to some of the variables, their characteristics likened them to women in the fraud and embezzlement group. For example, no differences were found between these two groups with regard to abuse and problematic behavior in childhood, involvement with delinquent peer groups, and self-control levels, which were relatively high for drug offenders.

An adequate account for these findings may be that the violence group had mostly been convicted of a single count of violence against a family member, spouse, or intimate partner. We can assume that these women had experienced violence themselves and that their victimization related to their crime. This assumption fit the pattern that relates to the "battered wife syndrome," whereby women murder their partners after a long stressful period in an extreme act of unexpected violence (Megargee, 1966; Verona & Carbonell, 2000). In her "Pathways to Prison," DeHart (2008) indicated ways that victimization relates directly to women's crimes (see also Daly, 1992, 1994). It is reasonable to assume that the assignment of women to a group solely according to the legal definition of a crime is not sufficient, and therefore further research is required to assess the possible disparity between the levels/types of violence committed by female offenders.

Finally, the current study found a significant influence of involvement with delinquent peer groups regardless of school type. As opposed to the pathways to crime model (Caspi et al., 1993, 1994), age at puberty and type of school attended by the subject were not found to be distinguishing factors between the pathways to crime. The findings may be explained by the fact that single-sex schools in Israel for pupils at puberty age (middle or high school) are not common and mainly serve religious, traditional or various ethnic communities. Furthermore, Israel's Compulsory Education Law is stringently upheld. Therefore, the vast majority of participants had been in school at puberty age, as opposed to the population used to create the pathways to crime model in New Zealand (where single-sex schools are far more common than in Israel).

In summary, an attempt was made to draft a typology of female prison inmates in Israel using the variables that emerge from the pathways to crime model, and the correlations between these variable and offense types. The attempt was only partially successful, particularly with regard to drug and fraud/embezzlement crimes. This integrated examination of socio-demographic and personality characteristics in dealing with female criminality points to the complexity inherent in the attempt to classify female offenders by categories. There is place for expanding on the present study and for supporting the findings with additional quality studies, both with regard to the nature of the crimes (crime types, character, etc.) and the women's histories, the circumstances of their childhood and adolescent years and the implications and influences thereof on the types of crimes they commit in adulthood.

There is enormous practical importance in the division of offenders into groups, as different groups of female offenders—defined as chronic, low or according to type of offense—dictates the need for different kinds of rehabilitation programs.

This is particularly pertinent with regard to findings related to the drug offenders group. Our results indicate that drug offenders have a more troubled life—both as adolescents and as adults—than do the other two groups of

offenders. This is potentially useful information due to the growing number of women incarcerated for drug offenses in Israel as well as in other countries. It is important to note that this group may present different challenges that could be relevant to treatment and rehabilitative efforts.

The present study contains several limitations, the most important being the size of the sample which is dictated by the limited female prison population in Israel, particularly with regard to fraud and violence offenders. In addition there are two methodology issues that characterize all studies conducted in total institutions such as prisons. Research participants were inmates who completed questionnaires while serving prison sentences. Even though the questionnaires were confidential, and the participants were assured that findings would be used for research purposes only, it is reasonable to assume that fear of the transfer of this information to prison staff or to other prisoners may result in deviation and a tendency toward excess conservatism and social appeasement. Finally, the state of being imprisoned and, in most cases, serving long-term sentences, may change the individuals' perceptions and personality. Being confined in a total institution, and perhaps undergoing rehabilitation processes and psychological therapy, creates circumstances in which the subject's personality during the study is not necessarily completely coherent with her personality on the day she committed the crime. Conducting a study in a prison can be termed a "necessary evil," and the problems connected to the participants' unique situation should be taken into consideration.

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