

Revisiting Arson from an Outpatient Forensic Perspective*

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ABSTRACT: Progress in the understanding of individuals who commit arson has been on a slow but steady course over the past two decades. From our review of court-ordered outpatient forensic psychiatric evaluation of individuals charged with arson over a five-year period, preliminary prototypical profiles of the psychotic, mentally retarded, alcohol abusing, and mood-disordered firesetter are offered. The clinical-legal relevance of our results are explored.

KEYWORDS: forensic science, arson, firesetting, psychiatry, psychosis, alcohol abuse, pyromania, mental disorder, psychiatry, dangerousness

The crime of arson continues to be a global problem (1,2). Since our last report on the subject in 1992 (3), there has been a slow but steady contribution to the psychiatric literature on arson from both psychosocial (4–9) and biological (10–12) perspectives, with the former approach currently predominating.

Before presenting our sample, we briefly review the recent relevant psychiatric literature, especially those dealing with pre-trial assessment of arson defendants. The review here focuses on the literature published since our previous, pre-trial study of arson defendants (3). In that paper, six other relatively contemporaneous pre-trial arson studies (13–18) were reviewed and used for comparison purposes with our previous study.

Rix described a sample of 153 adult arsonists garnered from pre-trial evaluations referred to Rix between 1983 and 1993 (4). Diagnoses were generally made by “routine clinical assessment” (p. 23, 4). Rix’s sample contained 129 (84%) men with a mean age of 25 years and 24 (16%) women with a mean age of 31 years in his sample. Ninety-three percent were white. Rix found that both males and females had similar proportions of criminal histories and that 20% of the men and 4% of the women had prior arson convictions. There was a trend for women to target residential properties and men to target non-residential sites. In 26% of the cases, the fire was set at the defendant’s own home. Diagnostically, 6% of the males, 17% of the females, and 8% overall had a psychotic diagnosis; 12% of the men, 8% of the women, and 11% overall were mentally retarded; 9% of the males, 4% of the females, and 8% overall had “al-

cohol misuse.” Intoxication was found in 38% of the defendants. Revenge was the most common motive for the arson, accounting for 31%.

Puri and colleagues studied a group of 36 defendants charged with arson who were examined by the North West Thames Forensic Psychiatry Service in England over the four year period 1987 to 1991 (5). Their sample included 26 (72.2%) males and 10 (27.8%) females. Mean ages for the men, women, and overall sample were 28.3, 24.2, and 27.2 years, respectively. Seventy-seven percent were white. The percentages of psychoactive substance abuse among the males, females, and overall sample were 60, 50, and 57, respectively. Forty-two percent of the men and 40% of the women had a history of alcohol abuse; and 35% of the men and 30% of the women had a history of other drug abuse. Ninety-one percent of the men and 70% of the women lived alone. Criminal history was positive for 61% of the males and 50% of the females. Five (19.2%) of the men and 2 (20%) of the women had a history of firesetting. Diagnostic breakdown was organic brain disorder (6%), alcohol-related (6%), schizophrenia (37%), depression (11%), learning disability (3%), psychopathic disorder (3%), and no disorder (34%).

Räsänen and associates compared a group of 98 arson defendants with 55 homicide defendants admitted to the University Hospital of Oulu, Finland for the years 1975 to 1993 (6). The homicide sample served as a “control” group. The arson sample was composed of 86 (88%) males and 12 (12%) females. The mean age of the arson group was 31.3 years. DSM-III-R (19) diagnostic criteria were used. Eighty-four percent of the arsonists had an alcohol abuse problem and 86% were thought to have been under the influence at the time of the arson. Eighteen percent carried a psychotic diagnosis. Four percent were thought to have pyromania. No Axis I diagnosis was found in 31% of the sample. Nearly one-half (49%) had a criminal history. Eighty-six percent had a prior psychiatric history.

Repo and colleagues reported on a study of 304 consecutively referred male Finnish arsonists older than age 15 years (7). Information was collected from pre-trial evaluations performed between 1978 and 1991 at Helsinki University Central Hospital. The mean age of their sample was 33 years. The authors used 282 of the 304 subjects for the study. The authors used DSM-III-R diagnostic criteria, except to diagnose intermittent explosive disorder where DSM-III (20) was used. Thirty-seven percent carried the diagnosis of intermittent explosive disorder and 14.2% carried a diagnosis of pyromania. Overall, alcohol dependence and antisocial personality disorder were common among recidivist criminals. The younger the defendant, the more likely they had been intoxicated with alcohol during the arson. Psychosis was common among first-time arsonists.

Using the same sample of 304 male Finnish arsonists from the

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Helsinki University Central Hospital, Repo and Virkkunen extracted the 44 (14.5%) who had a psychotic (schizophrenia or delusional disorder) diagnosis and compared them to the remaining 260 nonpsychotics (8). They also compared the 25 alcoholic and 19 nonalcoholic subjects in the psychotic group. The mean age of the psychotic group was 31.4 years, with the mean ages of the alcoholic and nonalcoholic psychotic subgroups at 33.2 and 28.9 years, respectively. Alcohol dependence was significantly more common among the nonpsychotic group than the psychotic group at 77.3% and 56.8%, respectively. There were more prior property crimes committed by the nonpsychotic group than psychotic group as well as the alcoholic than the nonalcoholic psychotic subgroup. All groups set fire to their own residence at about the same frequency, i.e., in the 42 to 45% range. Nonpsychotic arsonists were more likely than psychotic arsonists to have been intoxicated at the time of the firesetting at 86.5% and 52.3%, respectively. Seventy-seven percent overall were found to have alcohol dependence with a frequency of 57% among the psychotic group.

Barnett and colleagues collected information over the three year period 1983 to 1985 utilizing the Federal Central Register of then West Germany (9). The authors divided their sample into three groups: insanity acquittees ($N = 186$), those convicted of arson but found guilty of diminished responsibility ($N = 97$), and a random sample of those convicted of arson and had no psychiatric evaluation for trial ($N = 187$). They found that mentally disordered arsonists differed from non-mentally disordered arsonists in two ways. First, they were more likely to have had a prior history of arson. Second, they were more likely candidates for recidivism during the follow-up period extending to 1994. On the other hand, the mentally disordered arsonists reoffended less often for other criminal offenses, including traffic violations and alcohol-related crimes during the follow-up period.

In addition to these largely psychosocial studies, several recent neurochemical studies that included some arsonists in the overall study samples have yielded some promising findings. Virkkunen and associates compared three groups: 43 impulsive alcoholic offenders which included 10 firesetters, 15 nonimpulsive alcoholic offenders, and 21 healthy volunteers. Potential biological markers included a low CSF 5-HIAA concentration, low blood glucose nadirs after an oral glucose administration, and high CSF free testosterone and low corticotropin concentrations (10). Psychological testing found that those from this sample with low CSF 5-HIAA concentrations had high irritability, impulsivity, and anxiety ratings and that those with antisocial personality disorder and high free testosterone and low corticotropin concentrations had low socialization, high monotony avoidance, and sensation-seeking ratings (11). In another study by Virkkunen and colleagues, 114 male alcoholic violent offenders and firesetters were followed up for an average of 4.5 years post-prison release. The results suggested that a positive family history for paternal violence and alcoholism was associated with reduced central serotonin and dopamine turnover rates and that this reduced central serotonin turnover rate, in combination with low norepinephrine turnover rate and paternal absence from and the presence of brothers in the home during early childhood, was predictive of impulsive, recidivist violent behavior among violent offenders and firesetters (12).

For this paper, we present data on a group of pre-trial arson defendants. Our sample was collected from "outpatient" forensic mental health evaluations, i.e., those assessments taking place in the jails or in the offices of the forensic (court) clinic. The majority of pre-trial studies have been collected data from inpatient samples (3). Outpatient forensic psychiatric examinations will probably be-

come, if not already, the dominant form of pre-trial evaluation of criminal defendants as economic pressures make the availability of inpatient evaluations increasingly difficult.

After presenting our results, we compare our data with the other recent data and construct prototypical profiles of the major diagnostic groups found in our sample. Based on these profiles, we discuss their clinical-legal implications.

Methods

Our sample comes from consecutive court-ordered psychiatric evaluations of pre-trial criminal defendants charged with either arson or aggravated arson from the central Ohio area over a five year period. In Ohio, the crime of arson (section 2909.03 Ohio Revised Code, 21) involves fire directed only at property while the crime of aggravated arson (section 2909.02 Ohio Revised Code, 21) involves a fire that places a person in danger. We reviewed all the reports of defendants charged with arson or aggravated arson as their principal offense who were evaluated by the Forensic Psychiatry Center in Columbus, Ohio for the five year period, October 1991 to September 1996. Ohio's 88 counties are assigned to one of 12 catchment areas. Each catchment area has a designated Forensic Psychiatry Center. The Columbus Forensic Psychiatry Center's catchment area encompasses the counties of Franklin (where Columbus is located) and the surrounding counties of Delaware, Fairfield, Fayette, Licking, Madison, Pickaway, and Union, i.e., approximately the Columbus Metropolitan area. The population of the Columbus Metropolitan area during the study period was about 1.4 million (22).

Because the Columbus Forensic Psychiatry Center itself does not maintain a searchable list of evaluations by crime, the Ohio Department of Mental Health assisted by providing a list of evaluations performed by the Forensic Psychiatry Center of defendants charged with arson or aggravated arson for the five year period ending one year prior to our request. The Forensic Psychiatry Center records were reviewed for demographic and clinical information, including, age, sex, marital status, educational level, ethnicity, psychiatric history, criminal history, firesetting behavior not resulting in an arson charge, history of substance abuse, primary DSM-III-R psychiatric diagnosis, mental condition at the time of the alleged arson (intoxicant use, delusions, or hallucinations), information about the fire (location, target), and the psychological reason for the fire.

Based on the defendant's stated reason for the fire, a psychological motivation was determined. For purposes of the data analysis, we used the classification system of motivation adapted by Barker in her review of arson (23). Barker recognized four types of psychological motivation—acquisitive, instrumental, vindictive, cathartic and a "no obvious motive" category. The acquisitive motivation involves damage in the course of gain, perhaps best exemplified as arson-for-profit and therefore very rarely seen for psychiatric evaluation and therefore even more rarely reported in the psychiatric literature. The vindictive motivation involves damage aimed to cause suffering to a perceived aggressor, such as seen in revenge or jealousy. The instrumental motivation involves damage, as a reaction, designed as a tactic to achieve an end, such as a criminal act, a cry for help, self-destruction, juvenile set fires, and the "hero" type. The cathartic motivation involves damage inflicted through tension or anger without obvious environmental precipitant, such as for pleasure or excitement.

Some of the information we sought remains unknown, particularly in competence to stand trial evaluations. Unlike the practice

in other jurisdictions, such as in Los Angeles County where our previous study took place (3), the police reports and preliminary hearing transcripts are not routinely forwarded to the forensic evaluators. In central Ohio, the practice is for the Forensic Psychiatry Center evaluator to review these materials in the prosecutor's office. In the case of court requests only for competence to stand trial evaluations, the circumstances of the criminal charge(s) are not routinely described in the report, so information about the alleged arson in some cases was missing. A few other datapoints were missing because the forensic evaluator did not record them. Thus, even though there are N subjects in a particular subgroup of our sample, there were frequently less than N datapoints for a particular item. When calculating frequencies, we divided the actual number of datapoints (which may be less than N) by the number of positive responses for that item. We did not perform any of the forensic evaluations.

Results

There were a total of 32 (16 male and 16 female) unique defendants examined during this five year period. The mean age of the sample was 31.6 (range 20 to 53). Excluding the 5 mentally retarded subjects, of the 25 known educational levels, the average educational level completed was grade 11. Marital status of the sample was as follows: married-4, single (never married)-19, divorced-7, widowed-1, and separated-1. Ethnically, there were 20 Caucasians, 10 African-Americans, and 2 mixed race.

A positive psychiatric history was found in 22 (71.0%) of 31 cases. Of the 30 subjects whose criminal history was known, 10 had a history of arrests for property crimes, 6 had a history of arrests for violent crimes, and 4 had a history of arrests for both property and violent crimes. Overall, 12 (40%) had a history of a criminal arrest. Of the 31 cases in which firesetting history was known, 4 (12.9%) had a prior history of an arson arrest and 4 (12.9%) had a history of other firesetting behavior, although 2 (6.5%) had a prior history of both.

Table 1 lists the "primary" psychiatric diagnosis for the sample, except for mental retardation. Mental retardation was listed as the primary diagnosis for three subjects and as the secondary diagnosis for two others. However, because mental retardation may be a particularly important factor in firesetting behavior, when discussing individuals with mental retardation, we included those with a secondary diagnosis of mental retardation in the "primary" diag-

TABLE 1—"Primary" psychiatric diagnosis (N = 34*).

| | Males | Females | Total |
|--------------------------------|-------|---------|-------|
| Psychotic Group | 7 | 7 | 14 |
| Schizophrenia | 3 | 2 | |
| Schizoaffective disorder | 3 | 4 | |
| Delusional Disorder | 1 | 1 | |
| Mood Group | 2 | 3 | 5 |
| Major depressive disorder | 1 | 1 | |
| Bipolar disorder | 1 | 0 | |
| Dysthymic disorder | 0 | 2 | |
| Alcohol Abuse Group | 3 | 2 | 5 |
| Mental Retardation Group | 2 | 3 | 5 |
| Personality Disorder Group | 1 | 2 | 3 |
| Impulse Control Disorder Group | 1 | 0 | 1 |
| No Mental Illness Group | 1 | 0 | 1 |

* The two cases of mental retardation listed as a secondary diagnosis are included in the "primary" diagnostic groups.

TABLE 2—Principal psychological motivation (N = 24).

| Psychological Motivation | Males | Females | Total |
|---------------------------|-------|---------|-------|
| Vindictive | 7 | 7 | 14 |
| Instrumental | 1 | 3 | 4 |
| Cathartic | 1 | 0 | 1 |
| Vindictive & Instrumental | 0 | 2 | 2 |
| Vindictive & Cathartic | 1 | 0 | 1 |
| Instrumental & Cathartic | 1 | 1 | 2 |

nosis mental retardation group but did not do so for other secondary diagnoses. The diagnoses were collapsed into seven broader diagnostic groups. Although the number of those with a primary diagnosis of alcohol abuse was modest ($N = 5$), of the 31 cases in which the information was known, 17 (54.8%) had a substantial alcohol history and 11 (35.5%) had a substantial drug use history. All drug users also had a positive alcohol history.

Of the 20 cases in which mental condition at the time of the alleged crime was evaluated, 4 (20%) were thought to have been intoxicated, 3 (15%) were thought to have been experiencing delusions, 5 (25%) were thought to have been experiencing hallucinations, and 2 (10%) experienced both delusions and hallucinations. Overall, 6 (30%) were thought to be psychotic (experiencing either delusions or hallucinations) at that time. Of the 4 thought to have been intoxicated, none suffered from co-occurring psychotic symptoms. There were no command hallucinations found among these 20 cases.

Of the 26 cases in which the location of the fire was known, 12 (46.2%) fires occurred in the defendant's residence, 2 (7.7%) fires occurred at the place of employment, and 12 (46.2%) fires burned elsewhere. Table 2 displays the breakdown of what we determined the principal psychological motivation(s) to be. In 5 cases, a single principal motivation could not be determined, as the case appeared to best fit two motivations. When analyzing the data those with two co-principal motivations were counted as having principal motivations for both types, i.e., counted twice. In the 24 cases where psychological motivation was classifiable, the average ages of the cathartic, instrumental and vindictive groups were 31.3, 29.9, and 30.1 years, respectively. The cathartic group had 3 males and 1 female; the instrumental group had 2 males and 6 females; and the vindictive group had 8 males and 9 females.

The groups of male and female defendants had similar demographic and clinical characteristics. The average ages of the male and female groups were 31.1 and 32.1 years, respectively. Ethnically, there were 11 Caucasians, 4 African-Americans, and 1 mixed race among the males and 9 Caucasians, 6 African-American, and 1 mixed race among the females. Diagnostically, the male and female groups were almost identical. Each group had 7 subjects in the psychotic group. Alcohol use was similar. There were 3 and 2 primary diagnoses of alcohol abuse among the males and females, respectively; and there were 9 and 8 with a substantial alcohol history among the males and females, respectively.

The psychotic diagnostic group comprised the largest single diagnostic group with 14 (43.8%) of the 32 subjects. The group had 7 males and 7 females. The average age was 35.2. Ethnically, there were 9 Caucasians and 5 African-Americans. Criminal history was present in 7 (58.3%) out of 12 for which this could be determined. A history of arson or other firesetting was present in 4 (33.3%) out of these 12. Nine (64.2%) of the 14 psychotic defendants had an alcohol or drug history, although none were thought to have been under the influence at the time of the alleged arson. On the other hand,

6 (75%) out of 8 subjects for which a mental condition was reconstructed were thought to have been psychotic at the time of the alleged crime. In the 9 cases in the psychotic group for which a psychological motivation could be determined, 6 (66.7%) involved a vindictive motivation.

In the mood diagnostic group, there were five subjects, 2 male and 3 female. The average age was 29.8 years. Ethnically, there were 4 African-Americans and 1 Caucasian. Only 1 had a criminal history. Two had concomitant suicidal thinking at the time of the fire. Three out of 4 for which this was known had a history of alcohol or substance use; and 2 out of 4 were thought to have been under the influence at the time of the alleged arson. In the 4 cases in which psychological motivation could be classified, 3 were thought to be vindictive, although two of these were thought to also include a co-principal motivation.

There were 5 defendants, 3 females and 2 males, included in the mental retardation diagnostic group, the three subjects given mental retardation as a primary diagnosis and the two others who also had this condition mentioned in the report. The diagnoses of the two subjects whose mental retardation was a secondary diagnosis were schizophrenia and intermittent explosive disorder. Mean age of this group was 32.2 years. Two had a history of arson or firesetting. Three had a criminal history. There was no history of alcohol or drug use in the 4 cases for which this could be determined. In the 3 subjects in which a psychological motivations could be ascertained, all were classified as vindictive.

For the alcohol abuse diagnostic group, the average age of the five defendants was 23.0 years. Three males and 2 females comprised this group. Ethnically, there were 2 Caucasians, 2 African-Americans, and 2 mixed race. One had a psychiatric history and 1 had a criminal history. Of the 4 cases in which mental condition at the time of the alleged arson was performed, two were thought to have been under the influence at that time, but none was thought to have been psychotic at that time. Three of 4 for which data was available burned property outside of the home.

Discussion

Comparison of the Index Sample with Other Samples

Our sample of referrals to the Forensic Psychiatry Center for outpatient evaluation is unusual compared to pre-trial studies reviewed in this paper and in our previous paper (3) because of the equal number of male and female subjects. Prior pre-trial studies have had a far greater proportion of males among mixed gender samples (3–6,13). The average age of our sample was within the range [22.4 to 34.7] of other pre-trial studies (3–8,13–18). The ethnic distribution of the index sample was not out of proportion to the demographics of the Forensic Psychiatry Center's catchment area.

Diagnostically, 43.8% of our sample qualified for a psychotic diagnosis. The proportion of psychotic subjects lies between 0 and 86.2% in prior recent pre-trial samples (3–8,13–18). The proportion of our subjects with mental retardation was 15.6%, which lies halfway between the 0 to 33.3% range found in the prior studies (3–8,13–18).

A history of substantial alcohol use was particularly common in the Finnish samples (6–8), reaching 84% (6). The two British samples had lower figures of 8% (4) and 41.6% (5) for alcohol use. Our sample included 15.6% qualifying for an alcohol abuse diagnosis and 54.8% with a substantial alcohol use history. The wide range of alcohol use may reflect the different inclusion criteria for subjects as well as varying thresholds for what constituted alcohol use across the studies.

Another finding is the absence of the diagnosis of pyromania and only one (3.1%) diagnosis, either primary or secondary, of an impulse control disorder (intermittent explosive disorder) in the index sample. In this case there was co-occurring mental retardation which was listed as a secondary diagnosis. Pyromania has been similarly infrequently found among most pre-trial studies (3). However, in the recent Finnish studies (6,7) pyromania and other impulse control disorders have been found with greater frequency.

Our sample had a substantial (40%) frequency of prior criminal arrests. Puri and associates found a somewhat higher frequency with 61% of the males and 50% of the females, and 57.6% overall having a criminal history (5). Räsänen and colleagues found a 49% frequency in their sample (6). In our prior study, 65.5% had a criminal history (3). Four (12.5%) of the index sample had a prior history of arson. Prior studies have found the proportion of arson recidivists in their samples to be 20.7% (3), 19.4% (5), and 20% of the men and 4% of the women (4).

Intoxication was thought to have been a factor in 20% of our sample at the time of the alleged arson. A 38% intoxication frequency was found by Rix (4) and 86% by Räsänen and associates (6). A 51.7% frequency was found in our prior study (3). The proportion of our sample setting fire to their own residences was 42.3%, somewhat higher than the 26% reported by Rix (4). Similar to the reason for the wide range of alcohol use, what constituted "intoxication" across studies may account for the this range of frequencies.

Overall, demographically and diagnostically our sample is not atypical when using prior recent pre-trial studies for comparison, except for the equal number of male and female subjects in our sample. This latter finding is somewhat unexpected since prior mixed gender psychiatric samples have had a clear predominance of males subjects, except for those that specifically studying female subjects exclusively (16,17). Mean ages and ethnic breakdowns of our male and female subjects were nearly identical. More striking was the diagnostic similarity of the two genders in terms of psychosis and alcohol use. Our findings are consistent with one British study that found its sample's men and women not to be significantly different (5).

Prototypical Profiles by Diagnostic Groups

Although our sample size is modest and there are missing data-points, some trends can be identified among the psychotic, mental retardation, alcohol abuse, mood disordered diagnostic groups, and prototypical profiles can be developed (see Table 3). Our model sought to consider factors that can be readily obtainable via outpatient evaluation and provide a starting point for forensic psychiatric examiners to conceptualize cases of arson. By examining the characteristics of the four diagnostic groups listed in Table 3, they can be paired off into groupings of two: a "cognitive pathology" grouping containing the psychotic and mental retardation diagnostic groups and an "affective pathology" grouping containing the alcohol abuse and mood groups. In the cognitive pathology grouping there was impaired thinking, whether by a thought disorder or by limited intellect. In this grouping, individuals in both diagnostic groups were relatively older and had substantial criminal and arson/firesetting histories. The psychotic group also had a substantial history of substance abuse but not of intoxication at the time of the alleged arson and were likely to have been psychotic at the time of the fire. "Affective pathology" was chosen to signify the grouping of the other two diagnostic groups, because at the time of the alleged arson, there was a loss of emotional control, whether by in-

TABLE 3—Subject characteristics by diagnostic group.

| | Diagnostic Group | | | |
|---------------------------|------------------|--------------------|---------|------|
| | Psychotic | Mental Retardation | Alcohol | Mood |
| Mean Age | 35.2 | 29.8 | 23.0 | 32.2 |
| Substance Abuse History | M | L | H | H |
| Intoxicated | L | L | M | M |
| Psychotic | H | L | L | L |
| Suicidal | L | L | L | M |
| Criminal History | M | M | L | L |
| Arson/Firesetting History | M | M | L | L |

L = Low (0–25%).

M = Medium (26–74%).

H = High (75–100%).

toxicant or by mood. In the affective pathology grouping, both diagnostic groups were relatively younger, had substance abuse histories, had little criminal history, and were likely to have been intoxicated near or at the time of the alleged arson. The mood group also had a substantial frequency of co-occurring suicidal ideation at the time of the alleged arson. The common feature across diagnostic groups was the vindictive motivation underlying the alleged arson.

The cognitive pathology grouping had a higher frequency of criminal and arson recidivism as well as a higher number of co-occurring risk factors for violence (e.g., history of substance abuse, active psychosis or low intellectual capacity). In comparison, in the affective pathology grouping, the alleged arson was very often associated with alcohol usage and appeared to be more of a one-time event. This trend has implications for both mental health and criminal justice planning. Those in the cognitive grouping pose a greater challenge to the criminal justice system. For the psychotic and mentally retarded individuals comprising this grouping, there are generally inadequate resources to treat these individuals both while under the aegis of the criminal justice system if imprisoned and in the community when released from the jurisdiction of the criminal justice system. These individuals need intensive case management from the first day they enter prison or the forensic hospital with continuation after release into the community. They are, however, among the most challenging to work with and especially in the community where locating a residential placement can be next to impossible because of their risk for future firesetting. Needless to say, individuals with refractory psychotic illness, those with psychosis and co-occurring substance abuse, and those with mental retardation, present with several clinical challenges even when criminality is not involved. On the other hand, those in the affective pathology grouping, when compared to the cognitive pathology grouping, appear to be less likely to be a problem to the criminal justice system in terms of arson recidivism and possibly for general criminality. Those in this grouping are likely to continue with those maladaptive behaviors that occur with alcohol or drug use and unremitting depression. As such these individuals are likely to continue utilizing, sometimes for the long-term, treatment resources for substance abuse as well as for mental health, but they may not have as high a potential as those in the cognitive pathology grouping for subsequent criminal justice system costs. In any case, both groupings pose challenges to the allocation of resources from

the generally underfunded mental health and criminal justice systems.

The common finding among all diagnostic groups was the high frequency of vindictiveness as the principal motivation behind the fire. While some reduction in vindictiveness may be possible via “anger management” treatment, this may be part of greater problem which calls for a preventive approach which begins with an overhaul of societal values—a process which should commence in early childhood. This approach may have some viability with the present nationwide concern over school shootings by juveniles (24). If there were to be a concerted societal effort to address the juvenile violence problem, there may well be secondary benefits, such as a subsequent reduction in adult crimes motivated by vindictiveness. One question would be whether society would be willing to bear the economic costs to implement and provide continuing support for a large scale preventative intervention.

This study has several shortcomings, including missing data-points, relatively small sample size, a retrospective design whose data had been gathered in a non-systematized manner by different forensic evaluators. Even so, the results are generally consistent with previous pre-trial studies of arson defendants, including those who have had extensive inpatient assessments. Thus, the use of our prototypical profiles by diagnostic groups may provide useful guideposts for the forensic mental health consultant who must render an opinion based on a time-limited, cross-sectional outpatient view of the arson defendant.

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