Juvenile arson

questions and answers, cases and comments

Arson is the act of deliberately setting fire to property of any kind. Child firesetters are not necessarily arsonists: they may be too young to comprehend the implications of their actions or may start a fire unintentionally. What else do we know about children who light fires and how can we help them and their families?

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How common is juvenile arson?

In the United States in 1989, there were 97,000 fires of incendiary or suspicious origin, resulting in 1.5 billion dollars in property loss. Forty-three percent of all arrests made for arson were in children under 18 years of age, 30% were in children under 15 years and 7.5% were in children under 10 years.[1]

Although comparable data for Australia are not readily available, we do know that over the last 20 years there has been a substantial increase in the number of arson reports made to the police: the rate has risen from 17.76 per 100,000 of the population to 70.14 per 100,000. Further, in 1989, 38% of all arson arrests in Australia were of juveniles.[2]

In Victoria, police crime statistics show that in 1995 to 1996 the rate of arson allegations against juveniles (defined in this State as those aged 10 to 16 years) was 77.84 per 100,000 males and 8.50 per 100,000 females. This appears to be higher than the rate reported for the United States,[3] although direct comparison is difficult due to the varying definition of 'juvenile' and the different population base (number of juveniles in the defined age group).

What is juvenile arson?

Arson principally refers to the act of deliberately setting fire to property of any kind.[1] Two acknowledged experts in the field of arson have developed similar systems for classifying arson and arsonists (Table).[1,4] Both Geller and Prins separate juvenile arson from arson committed by adults but neither claims personal expertise in the area of juvenile arson. However, Geller differentiates arson from fireplay, the latter term being used to describe fires started by children too young to comprehend the implications of their actions.

IN SUMMARY

- **Firelighting, as opposed to curiosity about fires, should be taken seriously.**
- **All parents should be encouraged to make their homes fire safe by installing Standards Australia-approved smoke detectors and not leaving matches and lighters where young children may find them.**
- **All parents should be encouraged to teach young children that 'matches are tools not toys' and older children to be fire safe and fire competent.**
- **Educational programs run by trained firefighters for children and families can be an effective means of reducing the frequency and severity of firelighting.**
- **Lighting fires, more common in boys than girls, is often a symptom of other behavioural or emotional difficulties and referral to mental health services may be appropriate.**

NSW FIRE BRIGADES

The potentially tragic implications of fireplay is clearly demonstrated by a 10-year review of all child deaths in house fires in Scotland between 1980 and 1990.[5] Almost two-thirds of all child deaths occurred in those under 5 years of age, and over 40% were caused by children 'playing with fire' – that is, there was no evidence that the fires were deliberately lit.

What do we know about child firesetters?

Since Lewis and Yarnell's classic study of patho - logical firesetting, there have been many studies

Table. Classification of arson*

- For profit
- For crime concealment
- For revenge or vandalism
- For political purposes (including self-immolation)
- For vanity or recognition
- Secondary to a medical or mental disorder
- Committed by children and young people

*Adapted from references 1 and 4.

of childhood firelighting. Although most of these studies refer to young people who light fires and do not specify the nature of the fires lit, the intent or the damage caused, a number of consistent findings have emerged.

Characteristics

Gender

The vast majority (more than 90%) of children referred to psychiatric clinics with a history of firelighting are male.[6]

Age

Prins reported that in his sample of 113 imprisoned arsonists referred to a parole board, there were no children under the age of 11 years but there were 11 children aged 13 to 17 years.[4] However, firelighting is often reported to commence as early as 3 to 4 years of age.[7]

Behaviour

Many firesetters also exhibit a range of accompanying antisocial behaviours such as aggression, destructiveness, lying, stealing and truancy.[8,9] They commonly have poor academic achievement.[10] Prins commented that boredom and anger at society in general appeared to be important motivating factors in the young adult group of imprisoned arsonists; however, none in his sample met the criteria for the diagnosis of pyromania.[4]

Family background

Firesetters frequently come from homes characterised by absent fathers, high rates of parental pathology, marital dissatisfaction and alcohol abuse, and many have been neglected or abused.[11] A parenting style characterised by lax discipline and inconsistent enforcement of rules has been noted among many childhood firesetters.[9,11]

Comparison

Firesetters v. other delinquents

One study compared 25 male delinquents charged with firesetting with a similar group charged with offences not related to fire. The only statistically significant difference between groups was the frequency of past firesetting. Although the arson group had been charged with more offences, the difference did not reach significance.[12]

Another study of 36 incarcerated juvenile delinquents also found no difference in terms of behavioural symptomatology between firesetters and non-firesetters. Both groups had a comparable number of conduct symptoms.[13]

Sakheim and colleagues conducted several studies comparing firesetters with non-firesetters in residential treatment settings.[14-16] Firesetters scored higher on:

- severe maternal rejection
- anger with father for his absence, abandonment or abuse
- gaining mastery over adults through firesetting
- sexual excitement
- diagnosis of conduct disorder.

In addition, compared with their minor firesetting counterparts, more severe firesetters had:

- less adequate superego function
- poor social anticipation and awareness
- increased rage at insults or limitations
- more frequent cruelty to children or animals.

Adolescents v. adults

A comparison of adolescents and adults charged with arson found higher rates of substance use disorder among the adults and higher rates of conduct disorder among the adolescents. Although antisocial and other personality disorders were more common among the adults than the adolescents this did not reach significance.[17]

It has been suggested that firesetting in childhood may predispose one to similar behaviour in adult life but there is little evidence to support or refute this hypothesis.[18] Even among a group of convicted arsonists in the United Kingdom, only one had a prior conviction for arson, and only three had a second conviction during a 20-year follow up.[19]

Comment

On balance, it would appear that there may be some differences between firesetters and other antisocial youth; however, there is little to support the view that firesetting among young people constitutes a specific or separate behavioural syndrome.

What parents can do to prevent most firesetting*

- Teach very young children that fire is a tool we use to cook food or heat the home. It is not magic. It is certainly not a plaything. It is dangerous and only for adults to use carefully – use the example of driving a car or using power tools.
- Keep all matches and lighters out of the reach of very young children. Even a 2-year-old can work a cigarette lighter, or simply run it across carpet using it as a toy car. Purchase only child-resistant lighters.
- Young children should notify an adult if they find matches or lighters and be rewarded or praised for doing this.
- Set a good example. Care should always be taken with matches and fire. The home should be fire safe, in particular, flammable liquids should be properly stored and never used to light fires.
- Provide your children with a torch for their bedroom or cubby house.
- Allow older children aged 8 to 10 years to use fire, but only under direct supervision.

* Information reproduced by courtesy of the Juvenile Fire Awareness and Intervention Program, Melbourne, Vic.

What can be done about juvenile firesetting?

Fire awareness and intervention programs

Since the establishment of the Juvenile Fire Awareness and Prevention Program in Victoria (see below) in 1988, most other States have followed suit, setting up their own programs for young people who light fires.

What do programs offer?

The Melbourne-based Juvenile Fire Awareness and Prevention Program is conducted by specially trained firefighters, including volunteer firefighters from the Country Fire Authority, supported by mental health professionals with expertise in the field.

JUVENILE FIRE AWARENESS AND PREVENTION PROGRAM, MELBOURNE, VIC

Figure. The Melbourne-based Juvenile Fire Awareness and Prevention Program involves trained firefighters teaching young firelighters about fire safety and fire hazards.

The program involves firefighters visiting families in their own home. It is designed to reduce the frequency of firelighting by increasing the awareness of the young person and their family of the hazards of fire, fire prevention measures, including the installation of smoke detectors, and education about what to do in the event of a fire (see the Figure above and the box on page 60). The emphasis is on fire safety education geared to the developmental and cognitive ability of the child with positive reinforcement of 'good' fire behaviour, such as:

- abstaining from fireplay and firelighting
- giving matches or lighters found around the house to parents
- developing a 'fire plan' for the household.

Also important in fire safety education, is the discouragement of 'bad' behaviour, such as:

- playing with matches
- lighting fires.

Parents are encouraged to use logical consequences for subsequent episodes of firelighting – for example, the withdrawal of privileges such as watching favourite television shows, being grounded or brief periods of 'time out'. Consequences should be prompt, consistent, brief and tailored to the seriousness of the 'offence'.

Thus, the program incorporates educational and behavioural approaches to fire lighting.

Children who continue to light fires and those who are assessed as having additional mental health problems are referred for specialist assessment at a local child and adolescent mental health service. Reported recidivism (re-offending) rates for firelighting in the 12 months following program intervention have been less than 10%.

Who is referred to the programs?

Since the Juvenile Fire Awareness and Prevention Program was established, more than 1000 children and adolescents have been referred for assistance with problems associated with firelighting.

A study of 138 children, aged 4 to 16 years, referred to the program found that 97% were boys, less than half lived with both biological parents and 70% lived in a household with at least one smoker.[6] Very few gave evidence of lighting a fire with intent to cause damage despite a high frequency of firelighting – the mean number of fires in the 12 months before referral was 7.1. This may be partly explained by the very young age of the children in the sample – their mean age was 8.1 years. However, this was not simply a sample of inquisitive children, as shown by a mean Total Problem Score on the Child Behavior Checklist of 70 (two standard deviations above population norms).[20]

With the involvement of the Country Fire Authority, the program has expanded to cover rural areas of Victoria. In fact, almost two thirds of the 332 referrals in 1996 were from rural areas.[21]

Recently, a growing number of intellectually handicapped young people have been referred, particularly since the tragic death of nine intellectually handicapped men in a residential facility in Kew, Melbourne, in 1996 in a fire thought to have been lit by one of the residents.

In 1996, over 50% of referrals were precipitated by a fire in the child's own home and more than one in four fires occurred in the child's bedroom; over 25% of referrals were aged 10 to 17 years. Although very few of the juveniles referred to the program appeared to have lit fires with the specific intention of causing damage, many had a long history of 'playing with fire'. A history of abuse, family disruption (53%), and

Young firesetters and the GP: what would you do?

Case 1

The mother of a 5-year-old boy is worried that her son is fascinated by fire and wants your advice. She says he is always poking things in the fireplace, and yesterday she caught him burning pieces of paper in his cubby house.

Comment

Counsel the boy's mother to do the following.

- Place matches and lighters in a safe place inaccessible to the boy.
- Install smoke detectors if they are not already in the house.
- Purchase a Standards Australia-approved domestic fire extinguisher.

Case 2

An 8-year-old boy is brought to see you with superficial burns to his arms and face. He sustained these while lighting a fire in his bedroom. When the curtains caught fire he attempted to put the fire out, burning himself in the process. He then called his parents, who extinguished the fire before it caused any serious damage. The boy has no previous history of firelighting.

Comment

- Treat the burns.
- Get a detailed history of the fire to determine whether there are any readily identifiable precipitants such as relationship problems at home or at school.
- Advise the boy's mother to make the boy take some responsibility for the damage, such as helping to clean up the mess or paying for some of the damage.
- Counsel the boy's mother to place matches and lighters in a safe place inaccessible to the boy, to install smoke detectors if they do not already have them and to purchase a Standards Australia-approved domestic fire extinguisher.

Case 3

You are consulted by the mother of an intellectually disabled 13-year-old boy, who reports that her son has been interested in fires since he was 5 years old. The most recent incident involved lighting an oil lamp in an attempt to activate a smoke detector. His mother attributes his behaviour to boredom due to the distance they live from friends. His parents separated shortly before the most recent incident.

Comment

- Are intellectual disability services already involved?
- What help has the boy or his parents received in dealing with the parents' separation?
- What activities is the boy involved in outside the home that may help deal with his boredom and the distress about his parents' separation?

Case 4

A 10-year-old boy is brought to see you by his distressed and angry mother because he set fire to a mattress in a vacant house, destroying the house. The police want to charge him with arson and wilful damage. He has a history of aggressive behaviour and attention deficit hyperactivity disorder (ADHD), and has been lighting fires since he was 3 years old. His mother says he has played with fire every day for the past 12 months.

Comment

- Has the boy been referred to a child and adolescent mental health service or to a paediatrician or child psychiatrist for assessment and treatment of his ADHD, including the possible prescription of stimulants? Second-line drugs for ADHD include small doses of clonidine in divided doses throughout the day (100 to 250 µg daily).

Case 5

A distressed mother brings her 12-year-old son, whom you have known for six years, to see you. At the weekend, he lit a fire in the local primary school with an accomplice after they broke into the school and committed theft and vandalism. The fire caused extensive damage. The boy is an adopted child with a long history of behaviour problems and absconding from home. The police are planning to press charges.

Comment

- Has the boy been referred to a child and adolescent mental health service?
- Is referral for a forensic psychiatric assessment indicated?
- It sounds like the boy may have an attachment problem – a difficulty in the development of the relationship between the parent and child, suggested by the history of adoption and longstanding behavioural problems. Has anything been done to address this?

institutional or foster placement (19%) was common. Almost a third (31%) reported learning difficulties, 15% were said to suffer from attention deficit hyperactivity disorder (ADHD) and 20% had been in trouble with the police.

Fascination with fire and boredom were commonly cited reasons for the fires, particularly among the 10 to 17 year olds. There was no evidence of arson for profit.

Many fires occurred at times of significant personal or family stress.

These findings are consistent with other reports of juvenile firesetting.[22]

A general practice approach

From a general preventive point of view, it is worthwhile for general practitioners to recommend to all patients that every dwelling should have smoke detectors and an Standards Australia- approved domestic fire extinguisher. However, as it is likely that virtually all children have a general practitioner, it is likely that general practitioners will see most children who light fires.

In all cases of firesetting, general practitioners should take a careful history of previous behavioural and emotional problems as well as any recent or current stressors that may account for the problem.

Particular attention should be paid to a past history of antisocial behaviour, ADHD, recent stresses such as parental illness or separation, and changes in the child's behaviour.

Also, it is useful to know whether your local fire service has a program similar to Melbourne's Juvenile Fire Awareness and Intervention Program and what the process is for referral.

Typical cases that may present to a general practitioner are discussed in the box on page 64.

Conclusion

Unlike adults, children are not likely to set fires for profit, crime concealment or political purposes.

Very young children may start fires accidentally. Older children may be motivated by boredom, anger at society, or recent stresses at home or elsewhere. Firelighting is often a symptom of other behavioural or emotional difficulties. Fire awareness and prevention strategies, as well as referral to mental health services where appropriate, form the mainstay of management. MT

A list of references is available on request to the editorial office.

JUVENILE ARSON

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