



JUVENILE FIRESETTING

OVERVIEW

When juvenile delinquency is mentioned, arson is not usually the first type of offense that comes to mind. However, between 2014-2018, the National Fire Protection Association (NFPA) reported that 52,260 intentional structure fires were reported to U.S. fire departments with about 267,000 intentional fires annually.¹ Fifty percent of individuals arrested for these intentional fires were less than 18 years of age. The most common reasons for setting the fires were excitement, vandalism, crime concealment, revenge, other and unknown motivations.² According to the Bomb Arson Tracking System (BATS), there were 181 incendiary fires set by juveniles with residential and educational buildings making up 63 percent of the property types targeted by juveniles.³ From multiple official sources, it is clear that juveniles setting fires continues to be a challenge.

Families can prevent firesetting by setting a few rules, such as the following the U.S. Fire Administration guidelines on fire prevention:

1. Teach children that matches and lighters are not toys.
2. Never allow children to play with lighters or matches. About half of fires started by children are caused by children playing with matches and lighters.
3. Keep all matches and lighters out of the reach of children. Store in a high cabinet, preferably locked.
4. Do not leave young children unattended.
5. Teach young children to tell a grown-up when they see matches or lighters. Praise children when they tell you about found matches and lighters.

KEY POINTS

- Children set fires for a wide variety of reasons.
- Pyromania is an extremely rare disorder and is not usually the cause of juvenile firesetting.
- Children who deliberately set fires should be evaluated by a therapist or other professional.
- Fire safety education and cognitive behavioral therapy are common treatments.

¹ Campbell, R. (2021, September 1). Intentional structure fires. Retrieved from <https://www.nfpa.org/education-and-research/research/nfpa-research/fire-statistical-reports/intentional-fires>.

² United States Bomb Data Center. (2023). 2023 Arson incident report (AIR). p. 13. Retrieved from <https://www.atf.gov/resource-center/docs/report/2023arsonincidentreportpdf/download>.

³ Ibid.

6. If a child is overly interested in fire, has played with matches and lighters, or has started a fire, the family must address this natural curiosity immediately and teach the child about the dangers of fire. In this event, call your local fire department and ask if they have a juvenile firesetters intervention program.

Consult a mental health professional if your child exhibits behaviors such as adding more fuel to fires against your directions, lighting candles or other things despite being told not to, pocketing matches, or hiding fire-starting materials. If a school-age child intentionally sets fires, even after being appropriately disciplined, families must consider getting professional help. If you discover your child setting a fire, do not ignore it or assume that your child will not do it again after being disciplined. Many children who set fires do so repeatedly. Intervention is even more important if the child is setting fires to larger items or in instances where the flames can easily spread, causing injury and damage.

CAUSES AND RISK FACTORS

Children set fires for a variety of reasons, including curiosity about fire, crying for help, or engaging in delinquent behavior. Some of the reasons youth set fires are outlined in Table 1.

Table 1
Reasons for Juvenile Firesetting

Reasons	Description
Curiosity	A child sets a fire to learn more about fires and how they can be set.
Crisis motivated	A child sets a fire because they feel they have lost power. The fire gives them a false sense of mastery.
Delinquent firesetting	A child sets a fire to rebel against authority.
Pathological firesetting	A severely disturbed youth may set fires because of a severe mental disorder.
Cognitive impairment	A cognitively-impaired child may set a fire because they lack good judgment.
Sociocultural firesetting	A child sets a fire because of peer pressure, external pressures, or religious motives.

There is little consensus regarding specific risk factors or characteristics common to all juvenile firesetters because the factors are widely variable. The evidence suggests that the cause for firesetting in juveniles is likely a complex interplay between environmental, psychological, and biological factors.

The concept of fire interest has consistently been associated with firesetting behavior in multiple studies and has been identified as a risk factor for recidivism. In addition, early experiences with fire, early exposure to firesetting, and previous intentional firesetting behaviors are associated with juvenile firesetting behavior.

Being male is frequently reported as a risk factor for firesetting. Substance use, specifically alcohol and cannabis, is another common risk factor. In addition, children who have experienced emotional and physical abuse are more likely to have a history of firesetting than children who did not experience abuse.

Children with firesetting behaviors were more likely than other juvenile offenders to have received mental health treatment and to have had suicidal thoughts in the past. Conduct disorder and attention-deficit/hyperactivity disorder (ADHD) have been associated with juvenile firesetting in some studies. Research also suggests that firesetting may be an attempt by the youth to regulate difficult cognitive, social, and/or emotional experiences. These actions may serve to change the youth's current state of feelings by deliberately setting a fire, which in turn changes their current negative sensation. Firesetting can become a sensation-seeking practice for youth.

Some firesetting may be precipitated by a crisis and the subsequent need to assert control over the self or the environment. For these children, fire, as a powerful element, may offer a sense of mastery and competence. Depression, ADHD, or family stress may accompany this type of firesetting.

Delinquent-motivated firesetting conceptualizes the use of fire as one way of acting out against authority. These children rarely show empathy but tend to avoid harming others. Given that firesetting is one of 15 symptoms for conduct disorder, it makes sense to explore the relationship between delinquency and firesetting.

Pathological-motivated firesetting is the rarest of the motivations seen by practitioners in this field and describes a severely disturbed juvenile. It includes those who are actively psychotic, acutely paranoid or delusional, or who have lived in chronically disturbed and bizarre environments. A small, rare subtype of this group may meet criteria for pyromania. Pyromania is discussed in the "Disruptive, Impulse Control, and Conduct Disorders" section of the *Collection*.

Other variables linked to juvenile firesetting include peer pressure, curiosity, mental health and substance abuse problems, and lack of adult supervision. Research has also found a relationship between involvement in firesetting and parents/caregivers who smoke, due to the availability of matches and cigarette lighters, and because the purposive use of fire is familiar to the juvenile.

TREATMENTS

Currently, there are no evidence-based treatment approaches for the juvenile firesetting population. There is little to no research that supports pharmacological treatment. However, many other treatments have proven beneficial in the management of this behavior. These treatments are appropriately applied to firesetters with consideration for their age and are outlined in Table 2.

Cognitive behavioral therapy (CBT) and fire safety education (FSE) are found to significantly curtail firesetting and match-play behaviors up to a year after intervention. Firefighter home visits (FHV) have also been shown to significantly decrease the likelihood of juvenile firesetting. However, structured treatments designed to intervene with children who set fires were still found to have greater effect in the long-term than brief visits with a firefighter. Both CBT and FSE were also shown to be effective at reducing other activities associated with firesetting, such as playing with matches and being seen with matches or lighters.

Regardless of the seriousness of an incident or the child's motive for starting a fire, education regarding fire should be part of the intervention strategy. Education should include information about the nature of fire, how rapidly it spreads, and its potential for destructiveness. Information about how to maintain a fire-safe

environment, utilize escape plans and practice, and use fire appropriately has been shown to be an effective component of comprehensive arson intervention programs, at least for younger youth.

Social skills training may also help juveniles who have trouble expressing and adaptively managing their emotions. These skills include asking for help, making friends, solving problems, responding to failure, answering complaints, expressing affection, and negotiating.

Table 2
Summary of Treatments for Juvenile Firesetting

What Works	
There are no evidence-based practices at this time.	
What Seems to Work	
Cognitive behavioral therapy (CBT)	Structured treatments designed to intervene with children who set fires. Because firesetting is a maladaptive behavior, CBT is a reasonable intervention to consider for behavior modification.
Fire safety education	Education includes information about the nature of fire, how rapidly it spreads, and its potential for destructiveness, as well as information about how to maintain a fire-safe environment, utilizing escape plans and practice, and the appropriate use of fire.
Firefighter home visit	Firefighters visit homes and explain the dangers of playing with fire.
What Does Not Work	
Ignoring the problem	Leaving youth untreated is not beneficial because they typically do not outgrow this behavior. Behavior may increase.
Satiation	Satiation, repetitively lighting and extinguishing fires, may cause the youth to feel more competent around fire and may actually increase the behavior.
Burning the juvenile	Burning a juvenile to show the destructive force of fire is illegal and abusive. It will not decrease the likelihood of the juvenile setting fires or treat the problem.
Scaring the juvenile	Scare tactics may produce the emotions or stimulate the actions the clinician is trying to prevent, particularly when family or social issues may trigger firesetting. Scare tactics may also trigger defiance, avoidance, or may even increase the likelihood that firesetting traits continue.

RESOURCES AND ORGANIZATIONS

Association for Behavioral and Cognitive Therapies

<http://www.abct.org>

Office of Juvenile Justice and Delinquency
Prevention (OJJDP)

<https://ojjdp.ojp.gov/>

Society of Clinical Child and Adolescent Psychology

<https://sccap53.org/>

U.S. Fire Administration

<https://www.usfa.fema.gov/index.html>

Youth Firesetting Information Repository &
Evaluation System (YFIRES)

<https://yfires.com/>

VIRGINIA RESOURCES AND ORGANIZATIONS

Virginia Department of Fire Programs (VDFP)

<https://www.vafire.com/>

Virginia Tech

Child Study Center

[http://childstudycenter.wixsite.com/childstud
ycenter](http://childstudycenter.wixsite.com/childstudycenter)

Psychological Services Center

<https://support.psyc.vt.edu/centers/psc>

The Collection of Evidenced-Based Practices for Children and Adolescents with Mental Health Treatment Needs, 10th Collection
Virginia Commission on Youth, 2025

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