



# Youth Firesetting and Conduct Disorder: A Brief Review

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## Youth Firesetting

Firesetting is a complex behavior which can result in serious damage and loss of life. Controversy remains as to whether there is a relationship between firesetting and externalizing mental health disorders, and – if so – the magnitude of this relationship. The number of fires set by youth is disproportionately high, with studies reporting between 40-60% of fires in the United States, the United Kingdom, and New Zealand having been set by children and adolescents (Arson Prevention Bureau, 2006; Jones, Langley, & Penn, 2001; Raines & Foy, 1994; Statistics New Zealand, 2008). To clarify, of those arrested and charged with the crime of arson, 40-60% will be under the age of 18. However, it should be noted that most firesetting behavior does not meet the criteria for arson nor is it entered into the criminal justice system to receive legal interventions. Since many youths, especially those under the age of 12 (or the age of legal culpability, depending on the jurisdiction) cannot be charged with a crime, they could not be represented in statistics relevant to arson. It is estimated that between 5-15% of all children and adolescents have engaged in firesetting behavior before the age of 18 (Chen, Arria, & Anthony, 2003; Dadds & Fraser, 2006; Martin, Bergen, Richardson, Roeger, & Allison, 2004; McCarty & McMahon, 2005), with such behavior being more prevalent amongst males. The rate of firesetting peaks between the ages of 12 to 14 years (Hall, 2007).

In mental health settings, older research findings found that youth inpatients were at significantly higher risk of both firesetting that resulted in property destruction as well as match/lighter play that does not cause significant damage (Kolko & Kazdin, 1988). Firesetting behavior among youth has many motivations, ranging from more innocent motivations such as curiosity and boredom, to more pathological motivations such as destruction, revenge, sexual arousal, feelings of dominance and control, or expressions of stress/crisis. The latter, pathological motivations, share a similar cognitive style to youths diagnosed with conduct disorder. On the other hand, our professional experience and observations indicate that the vast majority of youths who have engaged in firesetting behaviors do not meet diagnostic criteria for conduct disorder.

## Conduct Disorder

With a global prevalence of 3.2% (Canino, Polanczyk, Bauermeister, Rohde, & Frick, 2010), conduct disorder is characterized by repetitive and persistent antisociality in youths under the age of 18, including deliberate property damage, fighting, theft, truancy, tantrums, lying, and disobedience to authority (Bravender, 2009). The onset of conduct disorder can begin as early as preschool, with the diagnosis becoming more prevalent in middle childhood (Silberg, Moore, & Rutter, 2015). The childhoods of boys and girls diagnosed with conduct disorder are often marked by parental abuse or neglect, inconsistent supervision, harsh discipline, and a large family size (American Psychiatric Association, 2013). The parents of this population have often been convicted of criminal behavior themselves, and are more likely to have been diagnosed with a major mental illness such as a substance use disorder, major depression, bipolar disorder, or schizophrenia. It is important to note that firesetting is one of the 15 criteria outlined for a conduct disorder diagnosis found in the DSM-5 (American Psychiatric Association, 2013). Despite conduct disorder being associated with serious adverse outcomes (see Table 1) and evidence-based interventions established (see Box 1), the condition goes largely untreated. Treatments for this population should be delivered within the Risk-Need-Responsivity framework (Bonta & Andrews, 2007) and carried out by a multidisciplinary team of mental health, educational, and youth fire intervention and prevention specialists when firesetting behavior is exhibited.

**TABLE 1. LONG-TERM OUTCOMES ASSOCIATED WITH CONDUCT DISORDER**

OUTCOME	REFERENCE
Criminality	Fergusson et al., 2005
Suicide	Klomek et al., 2009
Substance Abuse	Frick et al., 2014
Unemployment	Colman et al., 2009
Divorce	Olino et al., 2010
Lower Educational Attainment	Fergusson et al., 2005
Unplanned Pregnancy & Sexually Transmitted Diseases	American Psychiatric Association, 2013
Reduced Quality of Life	Olino et al., 2010

### **BOX 1. INTERVENTIONS FOR CONDUCT DISORDER**

- Anger Management
- Empathy Training
- Family Systems Therapy
- Individualized Education Program
- Medication
- Parent Management Training
- Relaxation Techniques
- Social Skills Training
- Trauma-Informed Care
- Treatment of co-occurring psychiatric disorders

Youth diagnosed with conduct disorder sometimes engage in firesetting, but children and adolescents without this diagnosis can also display firesetting behavior. In addition, only a minority of youths diagnosed with conduct disorder repeatedly set fires. Hence, while there appears to be an indirect connection between the two, as the demeanor and mindset is similar between youth firesetting behaviors without conduct disorder and children and adolescents with conduct disorder who do not set fires, it is not currently believed that one causally explains the other (Stickle & Blechman, 2002). In fact, based on our professional experience, rates of attention-deficit/hyperactivity disorder (ADHD) are far more common among youth who set fires than diagnoses of conduct disorder.

## **Conclusion**

In conclusion, although youth firesetting results in numerous injuries and deaths every year in the United States, the phenomenon receives relatively little research attention, with much of the research on the topic having been published multiple years ago. When a youth with conduct disorder engages in firesetting behaviors, it is likely not caused by the disorder. As such, additional research is needed to examine which factors contribute to firesetting behaviors in this population. Some of the factors worth exploring include the moderating impact of ADHD and other behavioral and co-occurring mental health conditions, head injury, executive function impairments, substance abuse, suicidal ideation, adverse prenatal and postnatal experiences, and social skills deficits to name a few. Further research is also warranted in order to identify screening and intervention approaches most appropriate for identifying and treating firesetting behaviors in youth who have been diagnosed with conduct disorder. This is important, because training mental health, criminal justice, and youth fire intervention professionals to recognize and screen for various risk factors in youth diagnosed with conduct disorder is of great importance. These professionals could provide the opportunity for early intervention, resulting in long-term benefits to the impacted individual, his or her family, and society in general.

## Author Biographies:

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**Don Porth, B.S.**, is a fire and life safety consultant, having retired from 31 years in the uniformed fire service specializing in youth firesetting behavior and public education/outreach. Other involvements include heading the nonprofit "SOS FIRES: Youth Intervention Programs" for 21 years. Through this involvement, he provided over 100 trainings to professionals across the United States and Canada. He serves as a principal staff member for the Youth Firesetting Information Repository & Evaluation System (YFIRES), a national data and case management system specifically designed for youth firesetting intervention programming.

**Kathi Osmonson, Deputy State Fire Marshal**, coordinates the Minnesota State Youth Fire Intervention Team (YFIT). YFIT partners with law enforcement, mental health, justice and social agencies to sustain a network of professionals who collaborate to provide intervention. Her career includes volunteer and career firefighting with specialties in fire prevention education and youth fire intervention. She is a member of the NFPA 1035 Committee, and a contract instructor for the FEMA National Fire Academy. She has earned her Master's Degree in Forensic Behavioral Health at Concordia University.

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