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Joav Merrick

University of Kentucky

Hatim A. Omar

University of Kentucky, hatim.omar@uky.edu

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Do not play with fire

**Joav Merrick, MD, MMedSc, DMSc^{*1,2,3,4}
and Hatim A Omar, MD, FAAP⁴**

¹National Institute of Child Health and Human Development, Jerusalem

²Office of the Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, Jerusalem

³Division of Pediatrics, Hadassah Hebrew University Medical Center, Mt Scopus Campus, Jerusalem, Israel

⁴Division of Adolescent Medicine, Kentucky Children's Hospital, University of Kentucky, Lexington, KY, USA

Introduction

Fire is the rapid oxidation of a material in the exothermic chemical process of combustion, releasing heat, light and various reaction products. Fire is intriguing and therefore something that will attract a curious child from an early age.

In 2010, the United States fire department responded to 44,900 fires started by someone, usually a child, playing with fire. These fires caused 90 civilian deaths, 890 civilian injuries and \$210 million in direct property damage (1). Preschoolers and kindergartners are most likely to start these fires, while playing with matches or lighters and most likely to die in these fires. Most fire-play fires (77%) started outside, but most associated deaths (97%) were in home structure fires. Almost half (46%) of people who start reported home fires by playing were five years old or younger. Two out of five (40%) child-playing home structure fires began in the bedroom. Mattresses and bedding were the items first ignited in 24% of child-playing home structure fires and 29% of associated civilian fire deaths (1).

Firesetter

In general, a firesetter is any individual who feels the impulse to set a fire for unusual reasons. Minor or not severe firesetting is defined as accidental or occasional fire-starting behavior by unsupervised children and most often started when a curious child (usually aged 5-10 years of age) plays with matches, lighters, or small fires. In order to prevent and make children aware of the danger of fires many fire departments and educational agencies have teamed up and created teaching and educational material for children already in early childhood education (2).

**Correspondence:* Professor Joav Merrick, MD, MMedSci, DMSc, Medical Director, Health Services, Division for Intellectual and Developmental Disabilities, Ministry of Social Affairs and Social Services, POBox 1260, IL-91012 Jerusalem, Israel. E-mail: jmerrick@zahav.net.il

The United States Fire Administration has developed a very comprehensive juvenile firesetter intervention handbook (3) that describes in great details the juvenile firesetter and their families, intervention, community work and how to build a juvenile firesetter program (3).

In spite of this handbook there is still no state or nationwide data base on firesetting in the United States (4). One retrospective study from Ohio reviewed charts of all fire setters between the years 2003-2005. There were 133 participants aged 3 to 17 years and analysis of the data set found 26% of the peak ages for fire involvement to be 12 and 14 years. Location, ignition source, and court ordered participants were divided into two age groups: 3 to 10 years (N = 58) and 11 to 17 years (N = 75). Bedrooms ranked first for the younger population and schools for the latter. Fifty-four percentage of the 133 participants used lighters over matches. Twelve percentage of the 3- to 10-year-olds were court mandated, compared with 52% of the 11- to 17-year-olds. Recidivism rates were 4 to 10% with a 33 to 38% survey return rate.

Pyromania

Whereas a child fire-setter is usually curious about fire and has the desire to learn more about fire, a pyromaniac is more than just a simple fire-setter, he or she is one who has an unusually bizarre impulse or desire to set intentional fires. Pathological firesetting, pyromania, is when the desire to set fires is repetitive and destructive to other people or property. Pyromania is a deliberate, planned and persistent behavior.

One recent study (5) examined the prevalence and correlates of intentional firesetting behavior in the United States from a nationally representative sample of US residents 18 years and older. Structured psychiatric interviews (N = 43,093) were completed by trained lay interviewers between 2001 and 2002. Firesetting as well as mood, anxiety, substance use, and personality disorders were assessed and the prevalence of lifetime firesetting in the US population was 1.0%. Males, white, 18 to 35 years old, born in the United States, and living in the western region of the United States had significantly higher rates of

firesetting. Firesetting was significantly associated with a wide range of antisocial behaviors and analyses identified strong associations between lifetime alcohol and marijuana use disorders, conduct disorder, antisocial and obsessive-compulsive personality disorders, and family history of antisocial behavior.

Intentional illicit firesetting behavior was associated with a broad array of antisocial behaviors and psychiatric comorbidities (5).

Research

The research of firesetting has been conducted in different ways and lack a coherent, consistent and comprehensive set of empirical findings (6). A recent review (6) concluded that despite a number of risk factors being repeatedly identified, an understanding of the etiology behind firesetting behavior and potential developmental trajectories remains theoretically rather than empirically based (6). Existing theories do not take sufficient account of the complexities of firesetting behavior and there is not yet a typology and accompanying assessment that has undergone thorough empirical testing and is of significant clinical utility.

Due to the relationship between firesetting and antisocial behavior there is a need for interdisciplinary intervention for firesetters that includes assessment and provides an individualized and developmentally appropriate approach.

References

- [1] National Fire Protection Association. Children playing with fire. URL: <http://www.nfpa.org/>
- [2] Victoria Department of Education and Early Childhood Development. Fire awareness for children. URL: <https://www.eduweb.vic.gov.au/edulibrary/public/commrel/news/fireawarep6.pdf>
- [3] Gaynor J. Juvenile firesetter intervention handbook. Emmitsburg, MD: United States Fire Administration, 2002.
- [4] Klein JJ, Mondozi MA, Andrews DA. The need for a juvenile fire setting database. *J Burn Care Res* 2008;29(6):955-8.
- [5] Vaughn MG, Fu Q, Delisi M, Wright JP, Beaver KM, Perron BE, Howard MO. Prevalence and correlates of firesetting in the United States: results from the

National Epidemiological Survey on Alcohol and Related Conditions. *Compr Psychiatry* 2010;51(3):217-23.

[6]

Lambie I, Randell I. Creating a firestorm: a review of children who deliberately light fires. *ClinPsychol Rev* 2011;31(3):307-27.