



Youth Firesetting Behaviors: A Review for Education Professionals

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Abstract

Firesetting is a concerning behavior which is typically first exhibited in childhood and adolescence. According to the fires set by youth averaged 49,300 fires, 860 civilian injuries, and 80 deaths per year between 2007 and 2011. The United States Fire Administration estimates that from 2009 to 2011, 4,000 school building fires were reported to fire departments causing 75 injuries and \$66.1 million in property loss. Forty two percent of these fires were deemed intentional. Schools have increased security measures related to firearms and weapons, but less efforts and attention have been placed on firesetting behaviors. Fires occurring on school property can impact the entire school in terms of mortality, injury, health, and economic welfare associated with damages. Educators are in a unique and pivotal position to monitor child and youth behaviors and may be able to identify early signs and actions akin to firesetting. Moreover, educators can respond immediately when firesetting is identified in the school context. Those employed in the field of education, including administration, teachers, counselors, and paraprofessionals, may not have prior knowledge or training on effective strategies and methods to intervene. This article provides a foundation for educators regarding firesetting awareness as well as effective assessment, treatment, and interventions.

Keywords: Firesetting; Interventions; Education; School Behavior; Youth

Overview

Youth firesetting is defined as persons up to, and including, age 17 involved with a firesetting incident, misuse of fire, or use of fire without the supervision or permission of a responsible adult. This includes match or lighter use without the ignition of other items or the ignition of explosive devices (including but not limited to fireworks and chemical/reactive explosive devices) [1,2]. Firesetting behaviors can be destructive to property and endanger lives. In fact, many lives are lost each year because of fire setting behaviors [3].

Firesetting behavior often begins in childhood or adolescence as many children between six and eight years of age are setting their first fire, also known as their index fire [4-6] found that boys tend to set multiple fires when compared to girls. When compared to females, male firesetters are more prevalent at a rate of two to three times in the community sample [7]. As children and youth may exhibit firesetting in the academic setting, it is helpful for educators to understand and respond, in healthy appropriate ways, to firesetting behaviors as they emerge. Firesetting behaviors can be effectively redirected and addressed with appropriate interventions. Although fires are sometimes started in schools by youth, few school teachers have received the necessary education to identify, or work with, students who exhibit firesetting behavior. The purpose of this article is to encourage increased training, education, and awareness of this topic.

According to the Office of Juvenile Justice and Delinquency Prevention ([OJJDP], 2016), 30% of

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crimes committed by juveniles are arsons. There are many reasons why children start fires and occasionally it may simply be out of curiosity. Not all children or youth who initially explore firesetting continue the behavior in the future; however, without proper intervention many will continue the behavior. In fact, youth fire intervention programs aimed at tracking recidivism find those efforts to interrupt the pattern of behavior to be highly successful [8]. However, when children or youth intentionally set fires, there are often other issues that may be present in the youth's life. This connection warrants investigation in order to address concerning behaviors. Some of the contributing factors may include:

- Cognitive development and understanding of severity of consequences associated with fire setting
- Mental health-related issues
- Trauma history
- Caregiver instability
- Substance misuse
- Learning problems
- Impulse control problems
- Bullying
- Feeling rejected by peers or family members
- Social skills deficits
- Physical abuse
- Sexual abuse
- Emotional neglect
- Family dynamics
- Lying
- Truancy
- Heightened aggression

Since firesetting behavior can be destructive to the young person, the school, and community, it is essential to build support networks to effectively intervene and address each young person when firesetting behavior is exhibited. While school officials, teachers and staff may provide a helpful network of strategies to intervene, this paper outlines some important and helpful tips, as the children and youth who exhibit firesetting behaviors may benefit from additional services outside of the competencies of school teachers. Consequently, partnering with other professional providers, such as youth fire intervention professionals, school psychologists, or youth counselors, who understand youth firesetting behavior, is important.

Firesetting is most often driven by one, sometimes more, of three overarching issues. Children may lack the knowledge necessary or cognitive decision-making abilities, to make appropriate decisions. Some youth may use such behavior to act out or communicate a need, such as a need for a safe living environment or the need for bullying to stop. Firesetting may be a result of peer pressure coupled with a lack of regard or understanding of cause and effect of the dangerous potential of fire. Regardless of the reason, education professionals must acknowledge such potential and put protections in place against actions that may prove dangerous to the youth and the general school

population.

Considerations

Since the educational setting is densely populated, firesetting behavior on school grounds poses a significant safety risk to many people. The Youth Firesetting Information Repository and Evaluation System (YFIRES), through a national sample collected in its data system, found that 41% of youth fires set from January 1, 2016 to August 31, 2017 were set by school age youth, during school hours, on school days, and during the months that school is typically in session. Further, 20% of the 564-case sample found the school building or grounds identified as the location of the fire (Porth, Manuscript in preparation). It is typically unusual for a youth to ignite a fire in plain view of others. The behavior is often in unseen or out of the way areas, or sometimes after hours, which contributes to the dangerous spread of fire. Fire can travel quickly and without notice, especially in older school buildings that might lack, or have limited, smoke alarm and fire sprinkler protection systems. Starting fires in the school setting is unique in that youth may be aware they are in a place where many other people are located. Significant consequences may result, potentially leading to major destruction and loss of life.

Firesetting behaviors can result in significant interruption in a child or youth's education. Suspension or expulsion from school or criminal charges (potentially felony charges), may be filed against the youth. This is disruptive to the youth's intellectual development and social connections. Removing a youth from school by expulsion or suspension may temporarily safeguard the school but may leave the youth in an unsupervised home where the behavior may continue with tragic results. Ideally, the behavior is addressed and treated with helpful interventions to limit interruptions in academic studies as well as repair any incurred damages. Addressing and treating firesetting behaviors immediately can reduce the behavior long-term [9].

Antisocial behaviors

Based on the evidence, youth firesetters are often involved in antisocial behaviors. According to [3], youth fire setters are more likely to engage in risk-taking behaviors and have some type of involvement with illegal drugs. These youth have shown a significantly higher level of aggression and participation in more severe antisocial behaviors [10]. Peer groups should be assessed as they can have important influences on youth firesetters and antisocial behaviors [11]. Impulsivity is also common among this population as this inhibits their behavior as they play with lighters, matches, and engage in fire setting behaviors [3]. Since firesetting is a type of delinquent behavior, research found youth firesetters have similar struggles as other delinquent peers in school [3].

Family dynamics

Findings suggest more attention should be given to the role of family dynamics in relation to youth firesetting. Of those children who have been identified as firesetters, 12% live with both biological parents [12]. However, it is more likely that youth who engage in firesetting behavior have experienced disruption in the family of origin, live with one parent or in blended, adopted, or foster care settings [5,13,14] found a prevalence of intense anger in youth firesetters if they felt rejection and abandonment by their parents. In other words, family dysfunction consistently correlates with severe firesetting behaviors and antisocial behaviors; therefore, it should be a target area for treatment providers [15]. Interventions should focus on characteristics of the child, characteristics of the caregiver or family

dynamics, and the overall family climate as these may be contributing risk factors to fire setting. Family awareness, involvement and support are essential in helping reduce youth fire setting behaviors.

Identification

The identification of a child or youth who is interested in firesetting or has already exhibited firesetting behaviors is key to intervention. In reviewing the literature, lack of supervision is a contributing factor to firesetting as unsupervised youth can have access to matches or lighters without parents intervening [3]. Youth from large families with lower socioeconomic status show increased rates of firesetting when compared to peers [3,16]. Families with lower income often lack the ability to provide for basic needs, such as clothing, shelter, and food. Children in these families may set fires as a way to alert others to their needs, although this cry for help may be subconscious (Heath, Hardesty, Goldfine, & Walker, 1983). In addition, low socioeconomic families have fewer resources available to them when problem behaviors like fire setting occur [16].

Exploring a child's motivation for setting a fire is suggested as the motive may include anger, rage, arrogance, or the excitement that coincides with extinguishing a fire [17]. Further examining intrinsic motivation and opportunities that create an environment ideal for firesetting should be considered [18]. School staff may identify student firesetting behavior in several ways. In some cases, a student may actually try to start a fire at school. This typically takes place in the restroom and should be addressed immediately. In other cases, students have been identified by astute teachers who smelled gasoline on the student or overheard conversations with other students about starting fires. In all of these cases, it is appropriate and helpful to refer the student to a youth fire intervention program.

Evaluation

It is critical for school personnel to investigate and refer a youth who has engaged in firesetting behavior to a youth fire intervention program. This can help guide the next steps towards redirecting prosocial behaviors and extinguishing firesetting behaviors. Remediation is most effective when it is coupled with evaluation and treatment. To apply restrictions or discipline to a child or youth without addressing the underlying reasons for setting fire may further aggravate the youths' behavior. Research demonstrates that punishment does not reinforce healthy behavior change, but rather increases aggression and negative reactions to those implementing the discipline. Overall, it is most effective to use positive practice and over practice of healthy, prosocial activities, when redirecting behaviors.

Collaboration with other education and community resource personnel is important when working with students who are at risk for firesetting behavior. It may be helpful for school personnel to create and maintain a relationship with their local fire department in order to refer those children and youth who exhibit firesetting behaviors to a youth fire intervention program. However, not every fire department has an intervention program. In some instances, untrained firefighters may provide harmful interventions such as scare tactics. A youth fire intervention specialist will typically conduct an interview/screening of the child and family situation. The interview/screening is based on an actuarial tool consisting of a questionnaire for the child and another for the family. Parents are an important role in treatment and intervention strategies as they can share information and insight that is essential to improve treatment outcomes and aid in community safety [19]. The outcomes of the

interview/screening help to determine the best intervention strategy.

Intervention

More importantly, youth who are engaged in firesetting behaviors or show interest in fire setting behaviors require early intervention as they are susceptible to other dysfunctional behavior patterns [20,21]. Clear understanding of antecedents, the consequences associated with the behaviors, and the relationship that exists between thoughts, emotions and the firesetting behaviors is essential [15]. Treatment providers should also canvas for a history of abuse to aid in prevention and treatment [3]. Helpful intervention strategies with children and youth take into consideration their cognitive understanding of events, as well as understanding of their actions. Limited cognitive functioning in planning and understanding has been found in youth fire setters [5].

Methods used to invoke fear about consequences, may evoke a strong emotional response, but will not likely effect behavioral change. Consequently, while some may consider fear as a tactic, scaring youth into compliance with fire is an ineffective strategy [22]. While the child may develop a fear of being caught, scare tactics do not provide information or examples of corrective or expected behavior. Until the frontal lobes of young people's brains are fully developed, they may have difficulty determining right from wrong, or fully thinking through actions to weigh out possible consequences, leading them to engage in impulsive behaviors and subsequent problems. Compounding cognitive developmental considerations of the possible perceived excitement surrounding fire can result in experimentation, and lead to tragic consequences. Research does suggest the need for interventions to focus on general antisocial behaviors and those youth who have specific fire-interest characteristics [23,24] support the need for professionals to pay attention to antisocial behaviors as there tends to be a correlation between firesetting and antisocial behaviors as previously mentioned. Unfortunately, mental health-based programs are limited for serious firesetting behaviors in youth [14,25]. Comprehensive assessments that include fire history, individual functioning, and family functioning are recommended by both clinicians and researchers [26,27]. Limited research and a lack of consensus by professionals makes it challenging to develop an effective treatment approach [14,25,27].

Firefighters who visit the school often focus on fire a survival skill, which is a very different skill, set than understanding how fire actually works. Knowledge and skills relevant to preventing the misuse of fire are dramatically different than those necessary to survive a fire in a home. Parents and caregivers may also be ill-informed about the realities of fire and are therefore unable to provide proper guidance. Moreover, initiatives are most often focused on the elementary school level and it becomes assumed that middle or high school youth already "know better." which is a false assumption. In fact, it is imperative that youth develop an accurate understanding of fire science. Fire is a complex process that involves a capacity to distinguish cause versus effect, exhibit empathy, and understand the science behind fire. Knowledge acquisition regarding fire and firesetting or fire safety goes beyond what is typically learned once a year during fire prevention week or in supplementary handouts or coloring books; it includes focused conversations, prevention, teaching, and discussion.

Teaching fire science and consequences of firesetting is a highly effective intervention strategy. It takes a well-equipped, and trained, fire and life safety educator to effectively convey this information to children and youth. Youth fire intervention programs have tools in

place to effectively teach these lessons. Parents are also involved in the youth fire intervention educational process. Learned examples, at home or elsewhere, are the most powerful influence over a youth's behavior. The best lessons available are those set by a parent or caregiver each and every day; hence knowledge of the principles of behavior modeling and its effects are useful in talking about role-modeling with parents. In this regard, educators can be instrumental in assisting and explaining how parents can effectively help to model appropriate behaviors. For example, a parent who is a smoker and regularly uses matches or a lighter in a careless or trivial way may inadvertently sets the tone for a child's lack of appreciation for the dangers of fire. Educators can help parents understand their role in responsible fire safety practices. Concurrently, parents are also responsible for the child's safety at home and can learn how to better fulfill this role through educating themselves and their youth by taking part in a youth fire intervention program. In any case, youth firesetters and their families should be trained in problem-solving and assertation skills, cognitive distortions and how to challenge them, and healthy ways to express and control anger [28]. These techniques target maladaptive patterns of thought, emotions, and behavior with the hope that these individuals can replace them with healthy and appropriate alternatives [15].

When outcomes of firesetting intervention screening are high, mental health professionals may also be required. Mental health professionals can assist in multifaceted cases where other mental health related concerns may seem to be contributing to firesetting behavior. Learning disabilities, maturation, or other cognitive challenges may interfere with the child's understanding of fire and risks or dangers associated with it. What one student will easily comprehend, another may not, even when both share the same classroom experience. Sometimes, social services can help a family with parenting skills and provide needed resources, so the family can optimally function and provide prosocial behavioral reinforcement. In instances where either abuse or neglect of the youth may be indicated, child protection services will need to be involved in order to supervise and ensure a healthy environment is provided to the child or youth.

Interventions that incorporate fire safety education and psychosocial interventions are recommended [29]. Research suggests even fire safety education programs consisting of a few hours or one full day are helping with risk reduction and proving to be beneficial [29]. Overall, reporting ANY fire on school grounds is critically important. Not only is it legally required, but this will help to get the child involved into a youth fire intervention program quickly and begin the process of healthy behavioral change. Patterns of behavior, both inside the school and around it, are important clues that help fire departments provide prevention resources to schools and communities.

Partnerships

Partnerships with local fire departments who have specialists trained in youth firesetting intervention are key. Not all firefighters have this training and not all fire departments provide a trained specialist. It is useful to discuss this with your local fire department to determine the best practices for addressing firesetting behavior before it occurs and determine levels of assistance you may be able to access through your local fire department personnel. For further assistance in locating youth fire intervention programs, visit www.YFIRES.com.

Partnerships with other schools within a district and beyond may also help adopt models of intervention and prevention for firesetting

behaviors in the school context. Local educational institutions can consult with each other to determine which methods may suit the needs for their population. School districts may have regulations in place for a course of action, which can be built upon and modified dependent on the educational setting. Additionally, outside consultants may be available to discuss and present information to educators, staff, and administrators. It is clear that a multiagency approach is necessary, including comprehensive risk assessments and referrals for this at-risk population [30].

Conclusion

Children and youth spend most of their time in the educational context, and firesetting behaviors often occur on academic grounds. Thus, educators have an opportunity to assist in addressing the needs of youth involved in firesetting behaviors. It is crucial for school professionals to understand firesetting, its implications, and impact upon other students, families, and the school environment because of the dangers inherent in firesetting behavior. Educators are poised to help, ensuring students are identified, concerns are communicated through the proper channels, and appropriate strategies are put in motion to assist the student in obtaining the necessary support to intervene and correct the behavior. Juvenile firesetting is a global problem causing billions of dollars of property loss, thousands of injuries from burns, and even results in deaths [4,31]. Still, there is little research on youth firesetting in comparison to other child and adolescent behaviors [3]. Through collaborative efforts with families and community professionals, intervention considerations can offer safety for students, other occupants of the school, and the community at large. Moreover, firesetting behavior can be addressed to reduce deviance and promote prosocial child and youth activities which nurture healthy self-esteem, mature cognitive development, and individual responsibility in the community.

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