# Identifying Juvenile Firesetters:

## A Survey of the Operating Procedures, Risk Assessment Instruments and the Characteristics of Juvenile Firesetter Intervention Programs in the United States

**Arthur Mastrangelo**

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**Abstract**

Juvenile firesetting is a complex and dangerous problem. According to the National Fire

Protection Association (NFPA) between 2005 and 2009 juvenile firesetters were

responsible on average for 56,300 fires annually and, according to the Federal Bureau of

Investigation, over the past twenty years more than half of juvenile arrests have been for

arson. The Federal Emergency Management Agency's (FEMA) *Juvenile Firesetter*

*Intervention Handbook* provides risk assessment tools to assess future firesetting

involvement. The fire service, because of its role in fire suppression and investigation, is

often the initial contact for these juveniles. This study examined the characteristics,

operations, and utility of the *Handbook's* assessment instruments. Findings were that

while programs operate according to FEMA's guidelines, fewer than half utilized

FEMA's assessment instruments.

*For Terry,*
*If there were no wind or waves we would remain aimlessly adrift*

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To the members of the New York City Fire Department, both past and present, I still marvel at your courage and selflessness, and I am proud to count myself among your ranks.

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**Introduction**

Early in the evening on January 3rd, 2008, the Fire Department of the City of New

York (FDNY) responded to a call for a fire reported to be on the 14th floor at 1700

Bedford Avenue, the Ebbets Field Apartments, named after the stadium that once housed

the famed Brooklyn Dodgers. News accounts described the evening as "bitterly cold"

(Ramirez, 2008). Upon reaching the 14th floor, firefighters encountered an acrid, heavy

smoke condition in the public hallway hindering their search for the fire apartment (Fire

Department of the City of New York Safety Report [FDNY], 2008). The residents of the

fire apartment, occupied by a hard-working single mother and her 6-year-old twin sons,

were supplementing the heat supply in the apartment via the open flame from the

stovetop (Baker, 2008; Ramirez, 2008).

One of the twin boys later admitted to investigators that he held packaging from a

Christmas gift over the open flame causing the item to ignite (FDNY Safety Report,

2008; Baker, 2008). Unbeknownst to his mother, who was in the living room, the boy

exited the kitchen with the packaging ablaze; as it began to drip onto the hallway rug it

caused several small fires, which he stamped out, but in a panic he threw the lit

packaging behind the bed in his bedroom, thus igniting the bed and subsequently the

entire bedroom (FDNY Safety Report, 2008; Baker, 2008). Upon smelling the smoke,

the boy's mother discovered the fire in the boy's bedroom and at first attempted to

extinguish the fire, but because of the fire's intensity, she immediately grabbed the two

boys and exited the apartment—inadvertently causing the apartment door to remain

ajar— as it jammed on a carpet in the entranceway (FDNY Safety Report, 2008).

Tragically, while battling the blaze, the officer in charge of the first arriving unit ran out

of air, and succumbed to his injuries at the scene (FDNY Safety Report, 2008). Though a

fire chief noted, "the open door was at the heart of the tragedy" (Baker, 2008, n.p.), the

ultimate cause was determined to be the unsanctioned use of fire by an adolescent

(FDNY Safety Report, 2008).

This fire, as well as other instances of juvenile firesetting that will be discussed in

this paper, reinforce that youthful firesetters are a community problem (Schwartzman,

Stambaugh & Kimball, 1998) that has been recognized by the fire service and mental

health professionals throughout the United States (Kolko, 2001). Child involvement in

fire is prevalent and has the potential to cause serious injury and loss of life (Grolnick,

Cole, Laurenitis & Schwartzman, 1990; Kolko, 2001). Putnam and Kirkpatrick (2005)

have noted that "in a typical year, fires set by children and youth claim the lives of

approximately 300 people and destroy more than $300 million worth of property" (p. 1).

Juvenile firesetting has been described as a "multidimensional behavior motivated by a

variety of circumstances" (Slavkin, 2002, p. 1238). But regardless of the child's

motivation, one lit match can have dire consequences; the following examples are

illustrative of the magnitude of this dangerous problem.

During the winter of 2011, in a four-week span  (February 11th , February 18th ,

and March 9th) three major fires occurred in the Bronx, New York, seriously injuring

thirteen people, including one child (most likely the firesetter) and several firefighters

(Kappstatter, 2011; Kemp, 2011).

The first fire erupted in an apartment on the fourth floor of a building in the

Kingsbridge section; had it not been for the heroic efforts of several good Samaritans the

outcome of the fire could have been far more disastrous. Because of these efforts, two

young children who were at home alone were rescued from the apartment (Kemp, 2011).

The children, ages 7 and 8 years old, were left unattended and, similar to the fire in

Brooklyn had used the open flame from the stovetop to ignite a combustible object.[1]

The second fire occurred in a woman's shelter at 2751 Grand Concourse, causing

further disruption to the lives of an already fragile, at-risk population (Kappstatter, 2011).

The child involved in the fire incident, a 5-year-old girl, was momentarily left alone in

the apartment, according to her mother, and was able to ignite combustible materials

using a lighter she found left unattended (see Footnote 1).

The third fire, on March 9th, which eventually rose to a 5th alarm (the highest

alarm the FDNY assigns to any one address) resulted in more than 30 families being left

homeless and also caused millions of dollars worth of damage. The cause of this

devastating fire was determined to be a 4-year-old boy using a lighter he also found

unattended in his apartment (see Footnote 1).

These examples are representative of the juvenile firesetting problem in America

and are consistent with the factors researchers have attributed to firesetting behavior:

personality and individual characteristics, family and social circumstances, and

environmental conditions (Kolko, Kazdin & Meyer, 1985; McCarty & McMahon, 2005;

Schwartzman et al, 2001; Stadolnik, 2000; Slavkin, 2000). Members of the fire service

also recognize several other common denominators among these fires: the cause and

origin of all four fires was determined by fire officials to have been the children, not one

of whom had previously been in contact with a juvenile firesetter intervention program

(see Footnote 1). As one of the lead agencies involved in the juvenile firesetting problem,

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[1] FDNY's Bureau of Fire Investigation's internal Fire Incident Report numbers: 20148/2011, 20172/2011, and 20259/2011.

a problem that has been described as "perplexing, dangerous, and fascinating behavior" (Stadolnik, 2000, p. 27), the fire service is uniquely qualified to provide fire safety education, the most widely accepted component of intervention programs (Federal Emergency Management Agency [FEMA], 2002; Gilbert, 2009; Kolko, Herschell & Scharf, 2006; Pinsonneault, Richardson & Pinsonneault, 2002; Slavkin, 2002; Stadolnik, 2000), and early detection of this behavior. This paper examines the history of the juvenile fire problem, and seeks to determine whether and how survey instruments included in the *Juvenile Firesetter Intervention Handbook*, developed by the Federal Emergency Management Agency (FEMA) are being utilized by fire departments in United States.

**I. The Fire Problem**

The 1960's and 1970's was an unprecedented period of social upheaval in American history. For the fire service, the turbulence of the times ushered in a dramatic rise in fires, false alarms, and all types of emergency calls for service (*America Burning*, 1973). The use of fire as a tool of social unrest, along with an epidemic of arson, led to an extraordinary era of urban decay. In 1973, the President's Commission on Fire Prevention and Control published *America Burning*. This landmark publication "was the first in-depth discussion of the country's fire problem, the most severe of industrialized Nations" (United States Fire Administration [USFA], 2009, p. 7). Similar in scope and impact to the 1967 report on America's burgeoning crime epidemic entitled *The Challenge of Crime in a Free Society*, the commission that published *America Burning* not only recognized America's fire problem, but made several important recommendations toward bringing the epidemic under control (*America Burning*, 1973). One of the most important items the commission recognized was the need for a federal agency to provide "a more coherent effort to reduce the Nation's fire losses" (*America Burning*, 1973, p. x). As a result of the commission's report, the U.S. Fire Administration (USFA) was established by Congress in 1974 (USFA, 2009) to "provide a national focus for the Nation's fire problem and to promote a comprehensive program with adequate funding to reduce life and property loss from fire" (*America Burning*, 1973, p. 9). The commission also noted that the newly established USFA "could not perform its function effectively without adequate data" (p. 9), thus the USFA became the agency responsible for collecting the information needed to conduct research and provide cost-effective solutions to the fire problem (*America Burning*, 1973).

Among the other recommendations outlined in *America Burning* was the need for additional emphasis to be placed on fire prevention, fire safety, and the training of fire service personnel to meet these aforementioned goals (*America Burning*, 1973). At the time the report was published, "annually, fire claimed nearly 12,000 lives in the United States" (*America Burning*, 1973, p. 1). The report further stated, "appallingly, the richest and most technologically advanced nation in the world leads all the major industrialized countries in per capita deaths and property loss from fire" (p. 1). The commission recognized that the fire service was indifferent toward fire prevention and fire safety, and that "the public shares their unconcern, for in the public's image—an  image which firefighters share—the fire department is a heroic-proportioned battalion of people rescuers and fire suppressors, not a professional corps of fire preventers" (p. 2). Thus, the USFA was faced with two significant challenges; namely, to reduce the loss of life and property in the United States and to change the attitude and responsibilities of the fire service to include fire prevention and fire safety education.

The impact of *America Burning* was immediate: fire prevention measures were needed to address the thousands of deaths, tens of thousands of injuries, and billions of dollars lost each year to fire (USFA, 2009). The National Fire Incident Reporting System (NFIRS), established in 1975, was a direct outgrowth of *America Burning*. It allows participating fire departments throughout the country to "collect a common core of information on an incident and any causalities that ensue by using a common set of definitions" (USFA, 2009, p. 9). The implementation of the NFIRS data collection system was one of the first recommendations that the newly formed USFA acted on (USFA, 2009). According to the United States Fire Administration (1997), "perhaps the

most fundamental use of NFIRS is in understanding the nature of the fire problem, whether conceived at the national, state, or local level" (p. 3).

Local fire departments from around the country forward all pertinent fire information to their state agency responsible for maintaining NFIRS data (United States Fire Administration [USFA], 1997). The annual NFIRS data "are used as the basis for the U.S. Fire Administration's publication *Fire in the United States*, which is the single most comprehensive reference on the nature and scope of the fire problem in the United States" (USFA, 97, p. 2). The NFIRS program is completely voluntary and the data is used by both public and private organizations throughout the country. The data accumulated by NFIRS has been used to advocate for fire safe products, such as childproof lighters, and "is currently being used to identify populations at high risk of experiencing fires so that educational efforts can specifically target those groups" (USFA, 1997, p. 7). The NFIRS indicated that by 2003 all 50 states were reporting to the system and that between the years 2003-2007 the United States "had a yearly average of 1,587,000 fires and 3,635 fire deaths" (USFA, 2009, p. 27)—a drastic reduction from the number of fire fatalities initially reported in 1973's *America Burning*.

But as NFIRS began to aggregate and interpret the data, it became apparent that America also faced another dilemma: the problem of juveniles and adolescents setting fires (USFA, 2009). In 1980, there were 184,700 child-playing fires of which 43,800 occurred in occupied structures (Hall, 2010a). In that same calendar year, the associated death toll from these fires was 430 (Hall, 2010a). Throughout the 1980's and into the early 1990's, fire deaths from child-playing fires remained disturbingly high—averaging 386 per year (Hall, 2010a).

More recently, according to the United States Fire Administration (2004), "where age was cited as a factor in a fire's ignition by lighters or matches, 37% of these fires were started by juveniles aged 10-17" (p. 1). In 2007, "children ages 9 and under accounted for 93 percent of the deaths and 38 percent of injuries where the cause of the residential building fire was due to 'playing with a heat source'" (USFA, 2011, p. 3). In 2008, an estimated 53,500 child-playing (matches or lighters) fires were reported by U.S. municipal fire departments, with 70 civilian deaths, 910 civilian injuries and $279 million in property damage (Hall, 2010a; USFA, 2009). In the United States during 2009, there were 2,565 fire deaths occurring in the home (Karter, 2010) and, according to Karter (2010) and the National Fire Protection Association (NFPA), during that same time period there was also "an estimated $7,796,000,000 property loss occurring in residential properties" (p. 13).

The fire service is not the only entity concerned with this potentially dangerous behavior: law enforcement agencies also encounter juvenile firesetters at an alarming rate. The Federal Bureau of Investigation (FBI) reported that the highest percentage of arrests involving persons under the age of 18 is for arson (Federal Bureau of Investigation [FBI], 2009). Between 1992 and 2008, juvenile arrests for arson have consistently ranged from 48 to 53 percent of all arrests (Hall, 2010b). In fact, "arson was the criminal offense with the greatest portion of juveniles in the arrestee population" (Snyder, 1999, n.p.). Stadolnik (2000) notes "during the past two decades, significant statistical evidence compiled by mental health, fire service, juvenile justice, and mental health professionals consistently highlights the dramatic incidence rates for firesetting behavior in the United States" (p. 11). And while these numbers are alarming, some have argued that because of

the covert nature of juvenile firesetting behavior, and the failure of many jurisdictions to adequately investigate fires,[2] many juvenile incidents go unreported—consequently these statistics do not adequately portray the scope of the juvenile firesetting problem (Cole et al., 2006; Schwartzman, Stambaugh & Kimball, 1998; Stadolnik, 2000; Slavkin, 2000).

The fire service is "usually the first agency to respond to a fire and many of the firesetters are identified at the scene" (FEMA, 1994), often making the fire service the initial contact for firesetters and their caregivers (Kolko, 1988; McCarty & McMahon, 2005). "Juvenile firesetting is a community problem, and the fire service is in a unique position to address it" having the ability to detect the problem, investigate the fire, and initiate an intervention or referral when appropriate (Schwartzman, Stambaugh & Kimball, 1998, p. 4). Most juvenile firesetter programs are operated by the fire service in the local community (FEMA, 2002; Kolko et al., 2008) and the USFA has played a leading role in the development of intervention programs designed to eradicate this behavior (FEMA, 2002; Hardesty & Gayton, 2002; Slavkin 2000; Stadolnik, 2000). The FEMA, the parent agency of the U.S. Fire Administration, has "pioneered the development and use of screening, assessment, and classification tools to be used primarily by trained local firefighters working in local intervention programs" (Stadolnik, 2000, p. 53).

**A. Definition of Terms**

Contemporaneous to the United States government's recognition of a fire epidemic in the early 1970's, the National Fire Protection Association (NFPA) began calling for "nationally applicable performance standards for uniformed fire service

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[2] Fact Sheet: *U.S. Fire Service Needs Assessment Fire Prevention Programs and Activities* NFPA Fire and Analysis & Research, Quincy, MA. June 2011.

personnel" (NFPA 10-35, 2009, p. 1). The NFPA, established over a century ago, is a

private organization comprised of members from the fire service, professional

engineering firms, and educators (Grant, 1995). The NFPA is an authority on fire,

electrical, and building safety, whose stated mission is to advocate for "scientifically-

based consensus codes and standards, research, and education for fire and related safety

issues" (Grant, 1995, n.p.). During the late 1980's the NFPA began including civilian

titles, such Fire Inspector and Fire and Life Safety Educator in its job performance

requirements (JPRs), and in 2000 established JPRs for the title of Juvenile Intervention

Specialist I and Juvenile Intervention Specialist II (NFPA 10-35, 2009). The latest

version of NFPA 10-35 *Standards for Professional Qualifications for Fire and Life*

*Safety Educator, Public Information Officer, and Juvenile Firesetter Intervention*

*Specialist*, published in 2010, contains the minimum requirements and training required

to provide the latest and best practices in a juvenile firesetter intervention program

(NFPA 10-35, 2009). The USFA provides courses at various times and at locations

throughout the country for eligible participants seeking to attain the above mentioned

certifications.[3]

The definition of *firesetting*, as described by the NFPA is "any unsanctioned

incendiary use of fire, including both intentional and unintentional involvement, whether

or not an actual fire and / or explosion occurs" (NFPA 10-35, 2009, p. 7). The NFPA

defines a *juvenile firesetter* as "a person, through the age of 18, or as defined by the

authority having jurisdiction, who is involved in the act of firesetting" (NFPA 10-35,

2009, p. 7). The FBI defines the criminal act of *arson* as, "any willful or malicious

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[3] U.S. Fire Administration: http://www.usfa.fema.gov/fireservice/training/.Retrieved on January 29, 2012.

burning or attempting to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc." (FBI, 2009).

But not all firesetting involving juveniles is criminal. Firesetting behavior can range from deliberate to accidental, and includes exploratory. Exploratory firesetting is also referred to as "curiosity firesetting" or "fire play" (Cole et al., 2006; FEMA, 2002; Grolnick, Cole, Laurenitis & Schwartzman, 1990). The latter term is controversial because of the implications involving the word "play." Curiosity firesetting is the term used in most of the literature, including the current *Juvenile Firesetter Intervention Handbook* published in 2002 by FEMA. Curiosity firesetting is common among younger children, while deliberate acts of fire involvement are most often associated with older adolescents (Schwartzman, Stambaugh & Kimball, 1998; Stadolnik, 2000). For the purpose of this research juvenile firesetting is conceptualized as "any unsanctioned, noninstrumental use of fire" (Grolnick, Cole, Laurenitis & Schwartzman, 1990, p. 129) including both intentional and unintentional fire involvement.

The term *intervention* as defined by NFPA is "a formal process for firesetting behavior that includes intake, interview, education, referral, and evaluation" (NFPA 10-35, 2009, p. 7). According to the NFPA a *program* is "a comprehensive strategy that addresses safety issues via educational means" (NFPA 10-35, 2009, p. 8) with the stated goal of "early identification and intervention to prevent and control firesetting and arson" (FEMA, 2002, p. 28). These are the definitions of arson, firesetting, program, and intervention that will be used in this research.

**B. Theories of Firesetting**

Early theories of firesetting behavior revolved around Freud's psychoanalytic theory of human development (Boberg, 2006). Boberg (2006) notes, "Freud believed that a relationship exists between fire and sexual drives and desires, and that firesetting was an expression of the phallic-urethral drive" (p. 39). Other theorists explained firesetting in the context of other problem behaviors. "Firesetting can be classified as one of many examples of problem behavior that has been identified in juveniles" (Slavkin, 2000, p. 16). But in 2000, Stadolnik stated:

> Over the past 20 years there has been a small but concerted effort among several professionals to articulate a comprehensive and structured model to help practitioners identify and conceptualize those variables which contribute to the likelihood that a juvenile will become involved in firesetting (p. 17).

Based on a variety of studies, several theories have emerged from researchers to explain this complex and often dangerous behavior. Three of the more prominent theories used to develop the screening and evaluation instruments utilized by the fire service and mental health professionals in juvenile firesetter programs throughout the country are discussed below.

**1. The Dynamic-Behavior Theory**

Kenneth Fineman developed one of the earliest theories of juvenile firesetting in 1980: it has come to be known as the dynamic-behavior theory (Boberg, 2006). The dynamic-behavior theory "is a broad-based conceptual framework designed specifically to explain firesetting behavior" (Schwartzman et al., 2001, p. 15). Fineman (1980) stated:

Firesetting behavior can be viewed as an interaction between dynamic historical factors which predispose a child toward a variety of antisocial acts, historical environmental contingencies which teach a child to play with fire, and immediate environmental contingencies which motivate the fire setting act (p. 488).

Thus, the dynamic-behavior theory "tries to define variables such as personality, social, and environmental factors that will predict the occurrence of firesetting behavior" (Schwartzman et al., 2001, p. 15). The dynamic-behavior theory defines three observable classes of psychological determinants: personality and individual characteristics (demographic, physical, emotional, motivational and psychiatric variables), family and social circumstances (family, peers, and social variables), and immediate environmental conditions (events occurring immediately prior, during, and after firesetting) (Fineman, 1980; Stadolnik, 2000; Schwartzman et al., 2001).

In 1995, Fineman (1995) published a journal article that further clarified the dynamic-behavior theory. He added "the model was developed in its present form by 1982" but that "much of the information originally presented was simplified in an attempt to develop evaluative instruments for fire service personnel who lacked training in psychological interviewing" (p. 41). Fineman (1995) noted, "The major contribution of the dynamic-behavior theory is that the majority of research related to describing the psychosocial characteristics of firesetting youngsters can be organized and classified utilizing this conceptual framework"(p. 42). He added, "this is the first time the model has been presented in written form to members of the mental health professions" (p. 41).

The dynamic-behavior theory and Fineman's work became the impetus for the Comprehensive FireRisk Evaluation (explained below) and the typology of juvenile

firesetter, which Fineman developed for a series of juvenile intervention handbooks and screening instruments used by the USFA (Stadolnik, 2000). According to Fineman "the dynamic-behavior formulation suggests the manner in which interventions can be carried out" depending on the circumstances surrounding the child, the environment, and the fire incident (Fineman, 1980, p. 495).

**2. Social-Learning Model**

In 1986, David Kolko and Alan Kazdin "drew on Social Learning Theory to develop a risk-factor model for juvenile firesetters" (Boberg, 2006, p. 41). Kolko and Kazdin (1986) synthesized and integrated "existing content domains that have been documented" (p. 51). Their theory includes three domains of risk, (a) learning experiences and cues, (b) personal repertoire, and (c) parent and family influences and stressors (Kolko & Kazdin, 1986). According to Stadolnik (2000), "Kolko and Kazdin highlighted the fact that firesetting is truly a multidisciplinary problem, involving professionals from mental health, fire service, juvenile justice, and community organizations" (p. 18). As such, this model had "important implications for the prediction, diagnosis, prevention, and treatment of firesetting" (Kolko & Kazdin, 1986, p. 56).

Kolko and Kazdin (1986) described learning experiences and cues as early modeling and interest in fire, direct experiences, along with accessibility to incendiary materials. The personal repertoire includes a child's cognitive components, behavioral components, and motivational components. Cognitive components are described as limited fire awareness and safety skills, behavior components as interpersonal skills—or lack thereof—and covert antisocial behavior. Kolko and Kazdin describe motivational

components as: "the experience of emotional loss and anxiety often produced by stressful situations and the specific reactions of juveniles to these events have often been implicated in the motives for setting fires" (p. 54). The parent and family influences and stressors include limited supervision and monitoring, parental distance and uninvolvement, parental pathology and limitations, and stressful external events (Kolko & Kazdin, 1986).

According to Kolko and Kazdin (1986) the model "highlights the diversity of domains related to firesetting" and the "utility in integrating these domains is to convey the complexity and multiplicity of influences that may converge to produce firesetters" (p. 56). The social-learning model presented variables that "might begin to discriminate among firesetters" (p. 57), which then could be used to develop a more diverse typology of firesetter. The model had "important implications for the diagnosis and classification of firesetting" (Kolko & Kazdin, 1986, p. 56), and became the basis of a screening and evaluation instrument utilized by clinicians throughout North America.

### 3. Cycles of Firesetting: The Oregon Model

The Oregon fire service has been on the forefront of juvenile firesetting research. Based on years of experience, the Oregon State Fire Marshal's Office and the Oregon Treatment Strategies Task Force partnered to develop the Cycles Model of Firesetting (Boberg, 2006). The Oregon model "attempts to take Fineman's 1995 model a step further by presenting firesetting behavior as a dynamic and repeating cycle" (Kolko, Nishi-Strattner, Wilcox, & Kopet, 2002, p. 199). According to the partnership, "the model grew out of clinical experience rather than out of empirical, standardized research"

and "illustrates the multidimensional nature of firesetting" (Oregon Treatment Studies

Task Force, 1996, p. 16).

The Oregon model consists of four interrelated dimensions that simultaneously

contribute to a child's firesetting behavior (Oregon Treatment Studies Task Force, 1996).

Stadolnik (2000) notes, "The Cycles Model is visually represented by four concentric

circles that represent the four dimensions of a juvenile's internal and external world that

are considered to be related to their likelihood of firesetting" (p. 19). The innermost ring,

or cycle, is comprised of the cognitive-emotional elements of the juvenile often identified

during the interview process (Oregon Treatment Studies Task Force, 1996). The

emotional cognitive cycle contains such "psychological concepts as the child's motives,

his or her beliefs about fire, his or her fantasies, and his or her perceptions of firesetting

in general" (Kolko, Nishi-Strattner, Wilcox, & Kopet, 2002, p. 201). The second ring, or

the behavioral cycle, "is comprised of the behaviors exhibited by the juvenile firesetter as

the cycle progresses" (Oregon Treatment Studies Task Force, 1996, p. 16). The

behavioral cycle includes observable actions, facial expressions, attempts to hide

behavior, reactions to a situation, and "everything that is observable to an onlooker who

is exterior to the child" (Kolko, Nishi-Strattner, Wilcox, & Kopet, 2002, p. 200).

The third ring, or the family cycle, represents the family dynamics that impact the

juvenile (Oregon Treatment Studies Task Force, 1996). The family cycle includes the

family's belief system, the family's expectations of the juvenile firesetter, the family

constellation, and the family's history of psychological problems or disorders (Kolko,

Nishi-Strattner, Wilcox, & Kopet, 2002). The fourth, and final ring, the community cycle,

"contains the community and social system factors which interact and impact the child

and family" (Oregon Treatment Studies Task Force, 1996, p. 16). The community cycle consists of churches, schools, media, gangs, social service agencies, and mental health providers (Oregon Treatment Studies Task Force, 1996). The community cycle "places an emphasis on an interdisciplinary approach to understanding the juvenile firesetter" (Oregon Treatment Studies Task Force, 1996, p. 26).

**C. The Juvenile Firesetter Intervention Handbook**

Since the mid-1970's USFA has commissioned and supported the development of several versions of the *Juvenile Firesetter Intervention Handbook* with the latest edition published in 2002 (Hardesty & Gayton, 2002). According to the USFA the first effort resulted in the three-volume *Juvenile Firesetter Handbooks (Ages Seven and Under, Ages 8-13, and Ages 14-18)* published in 1978 (FEMA, 2002). The second version, a collaboration between the Office of Juvenile Justice Delinquency and Prevention (OJJPD) and the USFA, the five-volume *National Juvenile Firesetter/Arson Control and Prevention Program* was published in 1994 (FEMA, 2002). As DiMillo (2002) notes:

> In the early 1970's when a California group applied to the U.S. Fire Administration (USFA) for funding to study the problem and develop a solution, their pioneering efforts set the stage for the level of involvement the U.S. Fire Service would have in an issue the clinical complexity of which has only recently become apparent to everyone (p. 141).

The results of these efforts also yielded a "diagnostic and interview instrument that could be used by fire personnel and counselors to assess the extent of a juvenile's firesetting problem" (Hardesty & Gayton, 2002, p. 4). Known as the "Comprehensive FireRisk

Evaluation"[4] it was developed by Kenneth Fineman (FEMA, 2002; Fineman, 1980; Hardesty & Gayton, 2002; Stadolnik, 2000). Fineman's research resulted in "one of the first, and perhaps most influential efforts" to address the problem of juvenile firesetting (Hardesty & Gayton, 2002, p. 4).

In 2002, the three-volume *Juvenile Firesetter Handbooks (Ages Seven and Under, Ages 8-13, and Ages 14-18)* and *National Juvenile Firesetter/Arson Control and Prevention Program* were combined to "assimilate all the previous written documentation published by these agencies" into the current *Juvenile Firesetter Intervention Handbook* (FEMA, 2002, p. ix).

The "Comprehensive FireRisk Evaluation" is provided in the latest version of the *Juvenile Firesetter Intervention Handbook* and contains four parts: the Family FireRisk Evaluation, the Juvenile FireRisk Evaluation, the Parent FireRisk Questionnaire, and the Comprehensive FireRisk Analysis (FEMA, 2002). The instrument is meant "to assess family contextual variables considered to be related to recurring firesetting" (Slavkin, 2000, p. 70). The Family FireRisk Evaluation contains 61 items regarding demographic information about the child, parents, other family members and firesetting incident to be scored (see Footnote 4), while the Juvenile FireRisk Evaluation segment contains 57 items (FEMA, 2002). The Parent FireRisk Questionnaire contains 116 items (FEMA, 2002).  Included in the three questionnaires are items related to school issues, peer issues, family issues, behavior issues, crisis or trauma, fire history and the characteristics of firestart or fireplay. Upon completion of the three screening instruments, the scores are

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[4]*Juvenile Firesetter Intervention Handbook*. "Comprehensive FireRisk Evaluation" See Appendix A3. 2-1 to A3. 2-41.
http://www.usfa.fema.gov/downloads/pdf/publications/fa-210.pdf.

entered into Comprehensive FireRisk Analysis "that summarizes the interview and questionnaire scores and calculates firesetting risk" (FEMA, 2002, p. 25). The scores indicate the level of risk—little, definite, or extreme—and "estimate the likelihood that the juvenile and family will experience firesetting or other behavior problems in the future" (FEMA, 2002, p. 25).

In 1998, researchers using the "Comprehensive FireRisk Evaluation," sometimes referred to as the "long form," developed a shortened version of firesetting risk "by selecting the most statistically valid questions contained on the "Comprehensive FireRisk Evaluation" (FEMA, 2002, p. 24). The results are the "Juvenile Firesetter Child and Family Risk Surveys"[5], sometimes referred to as the "short form," that contains two sections: the Family Risk Survey, and the Child Risk Survey (FEMA, 2002). Moynihan and Flesher (1998), the researchers responsible for the "Juvenile Firesetter Child and Family Risk Surveys," noted that the "Comprehensive FireRisk Evaluation" is "so comprehensive that any problem behavior, whether firesetting or not, it is likely to result in a heightened risk score" (p. 2). The researchers posited, "Since our goal was to measure fire behavior, we followed conventional wisdom to argue that the best predictor of future behavior is past behavior" hence firesetting is the criterion measure used to develop the Juvenile Firesetter Child and Family Risk Surveys (Moynihan & Flesher, 1998, p. 5).

The Family Risk Survey contains two sections: one part lists demographic information, while the second part "is comprised of seven questions, accompanied by

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[5] *Juvenile Firesetter Intervention Handbook.* "Juvenile Firesetter Child and Family Risk Surveys" See Appendix A3. 1-1 to A3. 1-20.
http://www.usfa.fema.gov/downloads/pdf/publications/fa-210.pdf.