



# HOT-ISSUES

## Oregon's Juvenile with Fire Screening Tool

*... purpose, research background and the role it serves*

The Office of State Fire Marshal (OSFM) has shared the *Oregon Juvenile with Fire Screening Tool*® with other states and fire departments. The National Fire Academy's JFS I and II class includes it as an example of a fire service screening tool.

OSFM asks that the tool be used in its entirety, as written, with proper credit given. Any changes to the tool compromise the integrity of its design and the purpose for which it was created. Without research comparable to that done in Oregon, there can be no assurance an altered tool performs as expected.

Oregon interventionists receive extensive training on the tool about its purpose, research background, and the role it serves in a comprehensive community-based evaluation and intervention program. This article was written to explain to others who have not received any training how and why the tool was developed, its intended use and why OSFM asks that it not be altered, reformatted or distributed without OSFM permission.

The discussion printed here is an edited version of a more technical essay which is available on the OSFM Web site: [www.oregon.gov/OSP/SFM](http://www.oregon.gov/OSP/SFM).

**The problem** In the early 1990s, the Office of State Fire Marshal (OSFM) realized the fire service was the only entity assessing the firesetting behavior of youths. Many mental health providers conducted psychological evaluations, but only a few actually addressed the firesetting behavior. In 1996 OSFM convened a task force to develop interviewing tools for the fire service and mental health providers.

**A continuum of evaluation** The task force suggested a continuum, or gated assessment approach, with three levels. The first level would be a basic screening process which would consist of a

simple set of questions **focused on the fire incident** and would result in a decision to provide fire education to the youth and family at the fire department, or a decision to refer the family to the next level for a psychosocial evaluation. This screening could be administered by a trained fire service interventionist, a juvenile justice or child welfare caseworker.

At the next level, an assessment would take more time and would be more complicated administratively, clinically, and statistically. This level would give a more accurate description of the child's overall behavior, render a decision regarding clinical diagnosis, and

### Continuum of Evaluation

Basic SCREENING	Mental Health ASSESSMENT	Psychological/Psychiatric EVALUATION
Fire Service School Counselor	MSW/LCSW/LPC/MS School Psychologist	Licensed Psychologist, PhD Psychiatrist, MD
Fire incident	Mental status	Cognitive functioning, IQ testing
Fire history	Family functioning	Personality traits
Fire knowledge	Social functioning	Developmental issues
	Stressors/crisis	Psychiatric history

provide more information about the family, school and peers. This assessment would be administered by a master's level mental health provider.

The final, and most comprehensive, level of evaluation would consist of a comprehensive psychological including the administration of a battery of tests administered by a licensed psychologist or an evaluation conducted by a psychiatrist.

In adopting this gated assessment approach, the Oregon fire service realized they needed to develop a new interviewing tool that utilized the knowledge, skills, and abilities of a fire professional trained in fire science, investigation and education. This new tool would be based on a number of premises:

- 1) It would not classify level of risk; existing national interviewing tools were based on a mental health risk assessment model. The Oregon fire service sought to change that focus and replace it with a fire service perspective which recognizes that all firesetting behavior is a high-risk behavior since any fire has the potential to cause death, injury and property loss. Many environmental conditions affect whether a fire can get out of control. Factors such as wind and fuel load can quickly grow a tiny flame to out-of-control dimensions which may be totally unrelated to the youth's motive for setting the fire or propensity to repeat the behavior. Making a judgment call about the level of risk represented by a juvenile using fire is in itself risky because no one can say for certain if a youth will set future fires.
- 2) It should be relatively short and easy to administer. Most of the fire professionals in Oregon have multiple responsibilities and cannot devote hours of time to interviewing youth.
- 3) Training Oregon interventionists on the tool statewide would ensure they all follow established standard operating guidelines. This consistency would ensure credibility for interventionists with their Oregon mental health and social service partners.
- 4) The word "screening" would replace the word "assessment" to indicate the distinct role the fire service plays in the process of evaluation.
- 5) It would focus primarily on questions about the fire incident which would incorporate the observations of the fire investigator. These observations are invaluable to a mental health provider and are the questions that mental health providers have the least training experience in asking.

### How was the tool developed?

The *Oregon Juvenile with Fire Screening Tool*<sup>®</sup> was developed over a three year period through research conducted by Drs. Michael Bullis and Paul Yovanoff from the University of Oregon Institute on Violence and Destructive Behavior (the Institute) under a contract with the Oregon Office of State Fire Marshal.

Oregon's Juvenile with Fire Program (the Program) and the Oregon fire service had, since 1990, used the *Comprehensive FireRisk Evaluation* (CFRE) developed by Dr. Kenneth Fineman for the Federal Emergency Management Agency (FEMA)/United States Fire Administration (1980, 1995). The Program and the Institute recognized that a well-accepted theoretical structure of pathology had been articulated by the Fineman measures (Fineman, 1980, 1995). As a result, assigning a risk level had become the dominant model. The CFRE states it was "developed to help you acquire the information you need to determine risk, specifically, the determination of little risk, definite risk, or extreme risk, relative to the prediction of future firesetting [recidivism], and especially dangerous firesetting."<sup>1</sup>

The initial version of the assessment was a three-part screening (Form A—Family Interview, Form B—Child Interview, and Form C—Parent Questionnaire). Specifically, the Institute wanted to identify items that could be eliminated from the FEMA tool, thus minimizing the administration time without jeopardizing the accuracy of referral decisions. The abbreviated screening instrument should still enable differentiation of curiosity fire-setters from more serious firesetters, who would be referred for more complete clinical evaluation.

**Research procedures** Data used in developing the new screening tool were derived from approximately 130 CFRE tools completed by Oregon fire service interventionists between 1996-97. The Institute's general procedure was to sample behavioral indicators. Items that retained the theoretical structure of the CFRE were recommended for inclusion in the new instrument. When specifying procedures for abbreviating the new instrument, the Institute followed methods recommended by the American Psychological Association Standards for Educational and Psychological Testing (APA & NCME, 1995).<sup>2</sup> The Institute isolated statistically significant risk factors that determine whether to refer a youth for a mental health evaluation. The Institute focused on three domains: school, family and peer group/community. Firesetting youths having red flags in

any of the domains are identified as appropriate for referral and beyond the capacity of the fire service to deliver the mental health services needed.

Along with results from completed interviews, each item was clinically evaluated by a group of mental health professionals having extensive experience with juveniles misusing fire. The clinicians identified interview questions they believed indicated a youth at risk and in need of referral.

Item Response Theory (IRT)<sup>3</sup> was used to analyze the data. Following are the basic steps used in the IRT analyses.

1. Develop a Total Risk Scale.
2. Develop IRT Scales for Forms A, B, and C.
3. Equate the Total Risk Scale and IRT Scales.
4. Calibrate each IRT Item I.
5. Identify Optimal Items.
6. Use Clinical Evaluators for Assessment Items.
7. Develop a Total Risk Score and IRT Score Intercorrelations.

Based on analyses of the interview results and item evaluation by clinicians, optimal items were identified as clinically and/or statistically supported. There was good overlap between the clinically and statistically indicated items.

**Fast forward to the present** The *Oregon Juvenile with Fire Screening Tool*<sup>®</sup> is part of a holistic intervention model in Oregon. The model encompasses a continuum of care from least to most restrictive, beginning with a screening using the Oregon tool, referral for a mental health assessment if indicated, and a full psychological evaluation for the most severely at-risk youths.

Each step along the continuum is staffed by appropriately trained practitioners: Fire service interventionists are trained and certified by Oregon's Department of Public Safety Standards and Training to administer and interpret the screening tool; referral assessments are made by credentialed mental health professionals.

Connections between all practitioners are developed and maintained by local intervention networks. Periodic conferences and trainings keep skills current and introduce new practitioners to the field and to the networks.

Educational interventions are vital to the success of the state-led program. These include fire safety education and competency-based cognitive skills training. Diversion programs under the auspices of the juvenile department, hospital-based programs, residential treatment, and shelter care facility programs are at a more restrictive level of the

continuum. At the most restrictive level, youths over fifteen face mandatory sentencing to a secure juvenile facility if they commit a chargeable fire offense. Accountability through assumption of responsibility for the fire is stressed throughout the continuum and the safety of the youth, family, and community are paramount.

## References

- <sup>1</sup> *Instructions for using the Comprehensive FireRisk Forms*, Kenneth R. Fineman, Ph.D., Version 2.001 Jan. 2, 1999.
  - <sup>2</sup> American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (1999). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
  - <sup>3</sup> Embretson, S. E., & Reise, S. P. (2000). *Item response theory for psychologists*. Mahwah, NJ: Erlbaum.
- Item analysis and test scoring with binary logistic models* (Version 3.0.2) [Computer Software]. Chicago: Scientific Software International. (A detailed explanation of the steps of the IRT analysis is available on the OSFM website: [www.oregon.gov/OSP/SFM](http://www.oregon.gov/OSP/SFM))

Ed. note: The present format of the screening tool was based on work done by Laurie Birchill, Oregon LCSW. The statistically significant items identified by the Institute were incorporated into the new tool, entitled *Oregon Juvenile with Fire Screening Tool*<sup>®</sup>.

The OSFM recognized the invaluable and pioneering work of Dr. Fineman and did not alter or change the integrity of the FEMA tool. That tool has stood the test of time since 1980 and formed the basis of other research projects. (Colorado Project, 1995.)

Just as the *Colorado FireRisk Assessment* should be used as developed and not changed or altered, so OSFM asks that our screening tool format not be altered, or new questions incorporated into it, and that recognition of the work be given to the state of Oregon. Without comparable research, changes to the tool compromise the integrity of its design and the purpose for which it was created.

# End of one chapter

By Carol Baumann, Editor, *Hot Issues*

Thirteen years! It hardly seems possible I've been editing this publication for that long, but so I have. This will be my last edition as editor.

*Hot Issues*, the Oregon Program, and I have seen lots of changes together — and *Hot Issues* has chronicled them all. Intervention with juveniles using fire has evolved from individuals across the country, usually working in isolation, to a network of people sharing ideas, programs, and research. The network has grown to embrace people from all disciplines — from the fire service, to mental health, juvenile justice, law enforcement and education. What a rich web of caring has been established.

Judy Okulitch, Oregon JFS Program Coordinator, and I have enjoyed a wonderful and inspiring working relationship and we have accomplished many of the things we hoped to do. I will miss our daily challenges. Now it's time for me to figure out what a person does when they're not working — that may take some doing.

Thank you all for your contributions to this field and to *Hot Issues* and my best wishes for continued success as you do this important work.



Judy Okulitch (L), Carol Baumann (R)  
at a conference, Summer 2008

## Ho, Ho, Ho

from the makers of novelty lighters



Thanks to Tony F. DiMare of Roseburg, Oregon, for spotting these lighters in his community and sending the photo to *Hot Issues*. It's continually amazing how prolific the manufacturers of these lighters are.

## Juvenile with fire conference

San Diego 2008 ... Oregon delegation



Top row, L to R: Jeremy Foster, Phil Koch, Dr. Tim Kopet, Linda Castaneda, Janae Jurkowski.

Bottom row, L to R: Sandra Johnston, Rolanda Ayers, Judy Okulitch, Linda Nickerson.

# A different kind of threat



For more than two years *Hot Issues* has been calling attention to the dangers of novelty lighters that look like toys. In an interesting variation on the theme, novelty lighters resembling real weapons have been the cause of several costly incidents which could easily have had tragic consequences.

In August of 2008, Laughlin/Bullhead International Airport was evacuated because a TSA screener discovered a novelty lighter resembling a grenade in luggage. This is the second such evacuation for the Bullhead airport. In January, an eight-year-old boy

tried to bring a grenade-like lighter on board.

In 1998, a gun-shaped lighter caused the shutdown of a terminal in Los Angeles Airport, resulting in the cancellation of twenty-nine flights.

In 2005, Canada's *National Post* reported that some 3,000 toy weapons had been seized at Canadian Airports by mid-year, causing "an estimated 15,000 hours of total delay." It was unreported how many of the 3,000 toy weapons were novelty lighters.

Last July in Oregon, an eight-year-old boy threatened a woman in his apartment complex with a novelty lighter that resembled a gun. The woman called the police. The responding officer pulled his gun on the youth and ultimately determined the gun was actually a laser pointer and novelty lighter. Fortunately, no one was injured.

*Hot Issues* staff has learned a thriving collectors market for miniature weapons exists. Given the similarities of shape and size of novelty lighters to mini-weapons, it's not surprising a gun-like lighter could fool even a police officer.

Pictured top left is the actual novelty lighter used by the Oregon youth. It was seized by the officer.

## Recent novelty lighter bans

These are the cities, counties, or states that we are aware of that had novelty lighter bans in place at the time this edition of *Hot Issues* went to press.

**Arkansas:** Atkins, Barling, Benton, Bryant, Clarksville, Conway, Dardanelle, Dover, Heber Springs, Hector, Jacksonville, Jonesboro, Little Rock, Malvern, Maumelle, Mountain Home, North Little Rock, Pine Bluff, Rogers, Russellville, Searcy, Sherwood, Van Buren

**California:** Cathedral City, Chula Vista, El Cajon, Encinitas, Highland, La Mesa, National City, Redlands, San Diego City, Solana Beach, Vista

**Connecticut:** New London

**Georgia:** Dawson County, Dawsonville, Americus

**Kentucky:** Shively

**Maine:** statewide

**Massachusetts:** Natick (\* Of note, inspired by the article in the Winter 2008 edition of *Hot Issues* featuring a youth in Alabama who is leading a campaign to ban novelty lighters in his community, a student in Brandon School, Natick, resolved to create a similar campaign in Natick.)

**Mississippi:** Meridian

**Ohio:** Huber Heights

**Oregon:** Rogue River, Sandy

**Tennessee:** statewide

**Washington:** City of Yakima, Sunnyside, Yakima County

**Wyoming:** Burns

# Greetings from Oz

By Kate McDonald, Victoria University, Australia

Ed. note. Kate McDonald is a doctoral candidate at Victoria University in Australia. In 2007, as part of her research on juvenile with fire intervention program practices and structure, she visited several programs in the United States. Kate surveyed the Oregon program, shadowed Program Coordinator Judy Okulitch, and interviewed several Oregon juvenile with fire intervention group coordinators. *Hot Issues* asked Kate to

update us on the progress of her research.

Victoria University in Australia, in conjunction with industry partners Metropolitan Fire Brigade (MFB) and Country Fire Authority (CFA), is investigating the Victorian Juvenile Fire Awareness and Intervention Program (JFAIP). This study is reviewing international and national

practices, with particular focus on JFAIP, in order to assess the program's effectiveness in treating and addressing the problem of juveniles engaged in firesetting.

The project has identified two key findings: different children and families present with different needs and risk, and children using fire are not exclusively a fire service problem; they are a community problem.

The study found some children and families need a more intensive mental health intervention to extinguish the behavior. While not all children engaged in using fire require the involvement of mental health agencies, some children present with severe pathology and dysfunctional families.

At present, there is no objective measure for Australian firefighter practitioners to use to make a decision about whether to refer a child to a specialized agency. The study recommends the use and inclusion of a reliable screening tool, such as the *Oregon*

*Juvenile with Fire Screening Tool*®, as part of the intervention because it provides a referral inventory.

I am part of the current research which has involved visiting key researchers in the area of juveniles with fire in both the U.S. and Canada. I found that not only had Australian research in the problem of juveniles using fire not progressed since the 1980s, but new thinking and ways of intervening had emerged overseas. It was consistently clear that children involved with fire present a shared mental health and fire service problem.

Another key recommendation, in addition to the use of a reliable screening tool, is that mental health agencies and the fire service should work collaboratively. It is also important that mental health practitioners directly target the symptoms of firesetting. The international programs I visited have recognized these approaches as best practice and a key to success.

The CFA and MFB have been involved in the current research and have been consulted about these key findings. They have embraced the recommendations as an opportunity to make key changes towards a best practice model for fire services in Australia. A pilot run of the *Oregon Juvenile with Fire Screening Tool*® began in August 2008.

The fire service has acknowledged the role of other professionals and agencies having an intervention role in the youth with fire problem in Australia. A series of educational forums is planned for March 2009. The current research by Victoria University will be presented, along with key international and national speakers. The forums aim to demystify the problem, to provide professionals with tools, and to generate discussion about other agencies' roles and resources.

Forum planners will extend invitations to key professionals in the area such as mental health, juvenile justice, police, school teachers, medical practitioners and other key fire personnel. The forums will be used not only to educate other professionals, but will include brainstorming sessions from diverse perspectives to share and gain wisdom on how to manage the youth fire problem in Australia. The forums will mark an important step forward towards a collaborative fire service and mental health approach, a unity that is viewed as best practice by world-wide standards.



# Support group for burn survivors

## ... intervention outreach

By Linda Hansen, Executive Director, Burns Recovered Support Group, Missouri

Burns Recovered Support Group (BRSG) has aided burn survivors for twenty-one years. Our largest program, Missouri Children's Burn Camp, has provided service to children ages six to seventeen for twelve years. Ten years ago, BRSG expanded to provide burn and fire prevention education.

Eight years ago BRSG began providing juvenile with fire education to the Missouri fire service using the FEMA intervention program. Unfortunately, trainees would call a year or more later saying they had taken the training, had not done an intervention, felt they had forgotten all they learned, and would not be good at working with a child with an inappropriate interest in fire.

Several firefighters in the greater St. Louis metropolitan area were doing juvenile with fire meetings, each in his own way. In 2003, I contacted them and asked if they would like to join a coalition under the umbrella of BRSG. All said yes.

BRSG formed the Prevention, Education, Intervention Coalition (PEICO), a group of firefighters, deputy juvenile officers (DJO) and a licensed professional counselor (LPC) whose specialty is pediatrics.

PEICO started by looking at the materials of existing local and national programs for ideas for their own program, Youth Fire Prevention Team (YFPT).

We think our name is very important. What child or parent wants to say they are going to a "juvenile firesetter" meeting? The name "Youth Fire Prevention Team" has no stigma to it and is something a child can comfortably and proudly say he is attending. We had a great logo designed and every child and parent receives a t-shirt which they are expected to wear to each class.

The YFPT meets one night a week for four weeks. The session runs one and a half hours. The size of the group varies as needed from one-on-one to several children. Some of the meetings are held at fire departments where the trainer works. Others are held in BRSG offices. At times we use central dispatch because of its convenient location. There is a general outline to the meetings, but each trainer is allowed to shift the rotation of the four meetings and to make other adjustments within the program.

The meetings are educational, not punitive. The goal is to instruct the child and parent about fire safety and to teach them how their choices and behavior make the difference between being safe or unsafe.

The program includes: (1) an intervention held separately with the parent and child; (2) homework including Exit Drill in the Home, a home fire safety inspection, a neighborhood fire safety inspection, and a scrapbook of newspaper or internet stories; (3) videos varying according to the age of the child or children in the class; (4) a presentation from an adult burn survivor and a burn-injured teenager who was burned due to his inappropriate behavior with fire.

The presentations of our burn survivors distinguish our program from others. BRSG is fortunate to have these people. There is nothing more powerful than what they have to say and the teenager provides a perspective no other person can bring. They do not use scare tactics, but talk about what they went through and the poor choices they made.

At the end of the four weeks, the child must complete a community service component. This can be working at a food pantry or going to a retirement or nursing home. Our goal is to teach the child there is much more in life and a need to care about the community at large.

The LPC who works with us will provide one pro bono meeting with a child if they are not already in counseling to assess if there is a need for counseling. Our team works very closely with the DJOs who refer children to our program. In some instances, these children are court mandated, while others are referral only. In either case, we keep the DJO abreast of the meetings.

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### Thank you!

Thanks to FireSafe Children and Families for funding the last edition of *Hot Issues*. This FEMA-funded program provides classes about fire safety to children ages six to seventeen and their families in the Portland, Oregon, metropolitan area. Program focus is on safe and responsible behaviors relating to fire use in the home and accountability for fire offenses. [www.firesafechildrenandfamilies.org](http://www.firesafechildrenandfamilies.org)



Oregon Office of State Fire Marshal  
Department of State Police  
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## Save the date!

Cultivating Partnerships: 2009 Tri-State  
Juvenile Firesetter Intervention  
Conference  
Colorado  
September 17 and 18, 2009

The Children's Hospital in Aurora/Denver, Colorado, is thrilled to be hosting the Fall 2009 Juvenile Firesetting Conference. After a great time in Portland and San Diego, we are excited to welcome everyone back to Colorado.

The conference plans will include two full days of training, workshops, and speakers (and hopefully a couple of pre-conference, discipline-specific, half-day intensive workshops).

This year's conference will continue the themes of collaboration and partnership that have been the hallmark of our tri-state conferences. There will be great opportunities for networking and socializing.

Please email or call Veronica Garza at [garza.veronica@tchden.org](mailto:garza.veronica@tchden.org) or 720-777-6661 to receive updated details as they are finalized. We look forward to hosting this year's high-altitude learning and fun. Hope you can join us!

## "Words, choose carefully," revisited

"When I read your article, I found myself frequently nodding my head in agreement. As a person very new to this field, I was surprised by what I felt amounted to name-calling in the use of the term 'firesetter' and I certainly believe that 'fireplay' lessens the seriousness of children using fire."

*Dianne Smith  
Dallas Fire-Rescue Department  
Dallas, Texas*

"Burns Recovered Support Group (BRSG) started providing juvenile with fire education to the fire service eight years ago ... We think our name is very important. What child or parent wants to say they are going to a 'juvenile firesetter' meeting? The name 'Youth Fire Prevention Team' has no stigma to it and is something a child can comfortably and proudly say he is attending."

*Linda Hansen, Executive Director  
Burns Recovered Support Group  
St. Louis, Missouri*

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