Executive Summary: Adolescent Female Firesetting  
“Is She Cinderella or the Wicked Witch?”  
An Exploratory Analysis of Adolescent Female Firesetting  
by Robert Stadolnik, Ed.D. and Theresa Manela, LICSW  
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Despite the overall decline in juvenile crime rates during the past decade, a closer inspection of the data reveals significant gender disparity in juvenile offense and arrest trends. For example, arrest rates for adolescent females have either increased, or decreased less, for most types of offenses, in comparison to rates for adolescent males (National Mental Health Association, 2006). Female juvenile offenders are more likely to be incarcerated for status offenses than their male counterparts, but the violent crime arrest rate of girls has increased twice as fast as the rate for boys during the past decade (Meichenbaum, 2006). The growing body of literature relative to female offenders identifies adolescent females as a particularly vulnerable subset within the larger population of juveniles who are reported to exhibit delinquent behaviors (Connor, 2002; Mathis, 2007; Sherman, 2005; Meichenbaum, 2006).

The vulnerability of female adolescents is reflected in the rates of sexual abuse and physical abuse victimization for this group, which are significantly higher than those of their male counterparts. Some researchers suggest that between 43-75% of antisocial girls have been sexually abused, whereas the general findings for males in this category reflect rates ranging from 12-13% (Connor, 2002). Similarly, Meichenbaum (2006) found that among female adolescents in the juvenile justice system, 70% have histories of physical abuse whereas only 32% of males involved with juvenile justice systems have been victimized. And yet, while the greater vulnerability of females involved with delinquency has been consistent with the literature, girls are much less likely than boys to be referred for mental health, social, or educational services (Meichenbaum, 2006). As adults, the prognostic picture for antisocial adolescent females appears to be considerably bleaker than for their male counterparts; delinquent females tend to have higher rates of arrest, psychiatric illness, substance addictions, and unstable lifestyles.

Firesetting behavior amongst children under the age of 18 is both dangerous and costly problem that has become a point of growing national concern (Boo, Boekamp, Armstrong, & Gillen, 2004; Pollinger, Samuels, & Stadolnik, 2005). The National Fire Prevention Association (NFPA) reported that although the overall for arson-caused fires have declined, over 50% of arson arrests continue to be attributable to juveniles. The property loss and damage resulting from juvenile-set fires is estimated to cost $276 million each year (Leihbacher, 2006). While statistics illustrate the stark realities of the scope of the juvenile firesetting problem, the topic has received considerably less attention as a focus of study when compared to other juvenile conduct problems (Kolko, 2003, Slavkin, 2001). It is widely accepted that 10-15% of juveniles involved in firesetting are female, yet these young adolescents have received less than 1% of the research attention in the field (Doctor, Jackson, & Manela, 2008).
Study Methods
Individuals whose data was selected for analysis in this study were adolescents referred specifically for a firesetting behavior evaluation to Inc., a specialized private psychology practice, between January, 2002 and December, 2006. During this period, 488 children under the age of 18 participated in structured firesetting behavior evaluations. Males referred for evaluation (N=408) represented 83.6% of the total population and females (N=80) represented 16.4%. All females between the ages of 12-17 (N=63) referred during this time were initially included. Three females referred for evaluations did not complete their participation and were therefore excluded from this study. An equal number of males (N=60) were selected at random from the total population of 12- to 17-year-old males (N=281) who were eligible. The total study population was N=120.

Results and Discussion
Results of this study reveal no significant differences in aggression profiles between males and females. On behavior measures, males were described by caretakers as displaying significantly higher levels of inattention and hyperactivity symptoms than females. On standardized personality measures, female subjects were more likely than their male counterparts to display a tendency in thinking/perceiving to distort reality according to their personal needs and desires and in holding an inappropriate facade of self-adequacy to mask insecurity.

With respect to firesetting, adolescent females were significantly less likely have pulled a false alarm and to have used an accelerant as part of behavior, and were more likely to have set fewer fires than their adolescent male counterparts. There were no significant gender differences for incidence of injuries related to firesetting or for the presence of burn marks in the home. Several firesetting behavior characteristics including curiosity about fire, thinking about fire, interest in playing with fire, and beliefs that fire is special or magical, were studied with no significant differences found between genders.

There were significant differences between the genders on level of placement and firesetting. Males placed in foster care were significantly more likely to have set more than ten fires than adolescent females in foster care, and males in residential treatment care were more likely to use accelerants than females who were placed in residential care. Adolescent females placed in residential care or living with their parents were significantly more likely to have set a fire in school.

There were significant findings for ethnicity as it relates to firesetting patterns among adolescent females. African-American and Caucasian females were especially more likely to have set fewer fires than Hispanic females. African-American females were most likely to have not used accelerants and Caucasian females were much less likely to have pulled a false alarm.

These findings suggest that many of the risk factors commonly used to estimate risk levels for males (e.g., total number of fires, accelerant use and versatility of firesetting) may not be as readily applicable to females. This finding may point to the potential need for the development
of more gender-sensitive assessment standards within the firesetting field. It follows that these findings also have implications for established intervention models used to respond to adolescent firesetting behavior (fire safety education, social skills training, behavior modification), since treatment models and outcome studies have largely been normed on male population samples.

A particularly robust finding in this study pertains to differences in location of fire across the genders; specifically, 18% of female subjects reported that the secondary location for their fires was in school, whereas the same was true for only 5% of males in the sample. This finding has implications for school personnel and school safety administrators; namely, that when responding to a school fire, care should be taken to avoid making assumptions regarding the potential gender of the person(s) responsible for the fire.

An unanticipated finding of this study was the interaction effect between ethnicity and firesetting characteristics among the adolescent female subjects. African-American females presented with firesetting behaviors that were less significant in terms of number and complexity as compared to their Caucasian and Hispanic cohorts.

About the Authors

Theresa Manela, LICSW, is a Licensed Independent Clinical Social Worker, who joined FirePsych, Inc. as a firesetting behavior diagnostican in 2002. Her background includes extensive experience working with children and adolescents in residential treatment and foster care settings. Additionally, Ms. Manela has led psychotherapy groups for younger children involved in firesetting behavior, as well as parenting groups and social skills groups and has provided clinical supervision to residential treatment staff.

Robert Stadolnik, Ed.D., President of FirePsych, Inc., is a Licensed Psychologist and author of Drawn to the Flame: Assessment and Treatment of Juvenile Firesetting Behavior (200) and the Firesetting Risk Assessment Tool for Youth (2010). Dr. Stadolnik has completed or supervised over 1500 firesetting behavior risk assessments, completed research studies on specialized firesetting populations including adolescents in residential care and adolescent females, and has consulted to fire safety programs, residential treatment centers, public school systems, state child welfare agencies. He has trained nationally and internationally on problem firesetting mental health and public safety audiences. Dr. Stadolnik partnered in the development and implementation of an innovative 45-day, evidence-based firesetting assessment protocol for short-term residential placement and clinically supervises a five-stage residential treatment program for problem firesetting. Recently Dr. Stadolnik has partnered to establish a specialized group home environment for adults with histories of mental illness and problem firesetting released from long term hospital care.
References


For information or questions please contact Dr. Robert Stadnik at firespsych@comcast.net or 781-762-8815.