

A scoping review and bibliometric analysis on juvenile fire setting behaviour

- Popular scientific summary

Intentionally lit fires are a significant problem that can lead to economic, human, and environmental damage. Examining Swedish crime statistics from 2013 to 2022 reveal that approximately half of the suspects involved in fire related vandalism are between ages 15 and 20. Additionally, when examining arson, including severe arson, approximately 30% of the suspects are between 15 to 20 years old. Juvenile fire setters appear to have very diverse motives and risk factors, indicating the need of individual assessment in intervention and treatment.

The primary aim of the review was to analyse the current scientific knowledge on fire setting behaviour among juveniles between ages 0 and 21. The review adopted the PRISMA (Transparent Reporting of Systematic Reviews and Meta-Analysis) framework and included 71 studies.

Prevalence rates between 4.6% and 37.6% were found in six studies that analysed the frequency of fire setting behaviour within community samples. The variation could partly be because the studies had different methods of assessing fire setting behaviour. Additionally, some of the studies had time constraints, for example, that the fire setting incident must have occurred within the past 6 months. A standardized method of measuring fire setting behaviour would be beneficial to make it easier to compare results from different studies.

Juvenile fire setters appear to have very diverse motives for their behaviour. Some of the motives that was found in the reviewed studies were curiosity, revenge, peer influence, boredom, destroying evidence, fun and anger. An interesting finding was that

even though curiosity could be viewed as something insignificant the motive was correlated with more persistent and severe fire setting behaviour.

Risk factors that have been linked to juvenile fire setting behaviour are also diverse and, in some aspects, similar to those found in children with other types of behavioural problems. Risk factors linked to juvenile fire setting behaviour range from family dysfunction, experiences of abuse, challenging school situations, suicidal tendencies, anxiety, depression, substance use, aggression, and cruelty towards animals and/or other children. Additionally, fire specific risk factors such as increased fire interest and carrying lighters have also been linked to fire setting behaviour among juveniles. The risk factors and motives for fire setting behaviour appear to differ between genders and among different age categories. With boys and older children (>13 years) engaging more in fire setting behaviour compared to girls and younger children.

Further research is recommended to address gaps in previous research. Research subjects that could be investigated further include standardizing prevalence measurements, conducting more longitudinal studies, exploring geographic variances, examining cooccurring risk factors and motives, analysing influences of external factors and further exploring gender and age differences.

Johanna Åkerström

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