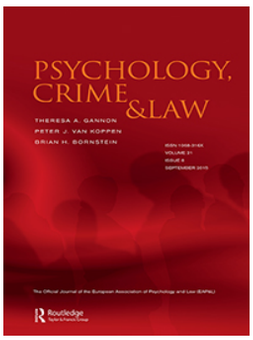

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The observation of mental disorder and dangerousness in arsonists: a contemporary appraisal of changes in Dutch forensic mental health cases

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In the Netherlands pre-trial forensic mental health assessments are conducted to examine whether a mental disorder was present at the time of the offence that affected the free will of a person, in which case criminal accountability is considered diminished or absent. This study aims to investigate societal changes over time in forensic mental health recommendations in arson cases. Seventy-two reports of male arsonists assessed in 1950–2010 were included in this study, 36 arsonists were assessed in the first time period (1950–1979) and 36 in the second period (1980–2010). Results show an association between DSM classification and the conclusion on criminal accountability only in the first period and an association between recidivism risk and the forensic mental health recommendation only in the later period. It is concluded that mental disorder was of greater influence on the conclusion on accountability in the first time period, whilst dangerousness played a more important role on the forensic mental health recommendation in the later time period. Our findings reflect a shift from paternalistic principles to principles of risk control and show that societal changes influence the field of forensic mental health.

Keywords: arson; forensic mental health reports; mental disorder; dangerousness/recidivism risk; post-war developments

Introduction

With its severe negative consequences, firesetting has a large impact on society. Almost 41,000 fires were registered in the Netherlands in 2011 accounting for 764 million Euros damage, of which almost 20% was caused by arson (Statistics Netherlands, 2012). In that same year, Great Britain' fire and rescue services attended over 100,000 'primary' fires,[1] of which one-third was caused deliberately (Department for Communities and Local Government, 2012). In England alone the associated costs are estimated to be around eight billion Pounds (Department for Communities and Local Government, 2011). Apart from financial damage, firesetting can result in loss of life and prolonged emotional and psychological distress in survivors (Lundin & Jansson, 2007).

Historically, firesetters were seen as pyromaniacs and their behaviour considered disturbed and disordered (Doley, 2003; Plinsinga, Colon, & De Jong, 1997). Although pyromania is rare (Koenraadt, Dalhuisen, & Nijman, 2012; Plinsinga et al., 1997), other

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mental health problems are relatively common amongst firesetters (Tyler & Gannon, 2012), especially schizophrenia and other psychotic disorders (Anwar, Långström, Grann, & Fazel, 2011; Burton, McNiel, & Binder, 2012; Enayati, Grann, Lubbe, & Fazel, 2008; Repo, Virkkunen, Rawlings, & Linnoila, 1997; Ritchie & Huff, 1999) and personality disorders (Barnett & Spitzer, 1994; Dolan, Millington, & Park, 2002; Lindberg, Holi, Tani, & Virkkunen, 2005; Ritchie & Huff, 1999).

Because of its negative societal impact, the act of firesetting is punishable under criminal law and commonly referred to as arson (Gannon & Pina, 2010). During criminal proceedings, the mental condition of arsonists may give rise to further examination of their mental faculties (Prins, Tennent, & Trick, 1985; Van Kordelaar, 2002). Pre-trial forensic mental health reports are common in arson cases. Around 10% of all pre-trial forensic evaluations in the Netherlands concern arson cases (Canton, 2004; Van Kordelaar, 2008), which is similar to other European countries like Sweden (8.5%; Fazel & Grann, 2002).

Pre-trial forensic mental health assessment in the Netherlands

Although legal frameworks and methods differ (Dressing & Salize, 2006), in the Netherlands, as well as in most other Western countries (Bal & Koenraadt, 2000), pre-trial forensic mental health assessments are conducted to examine whether a psychological or psychiatric disorder was present at the time of the offence. In the Netherlands, the presence of a mental disorder is a necessary, but not sufficient condition to diminish criminal accountability. The mental disorder must have affected the free will of a person in order for criminal liability to be considered diminished or absent (Kelk & De Jong, 2013). The concept of free will in this respect is used as a legal term, meaning that a person at the time of the offence was able to decide whether or not to commit the crime.[2] Criminal liability is measured on a 5-point scale ranging from fully accountable to unaccountable (Dalhuisen, 2013). Apart from criminal accountability, the risk of re-offending is also assessed, and a forensic mental health recommendation is given to inform the judge on the indications and contraindications for hospitalization and other measures which can be imposed (Bal & Koenraadt, 2000; Sierink & Van Mulbregt, 2007). A high risk of recidivism, or dangerousness, is necessary, but not sufficient, for the recommendation and imposition of a mandatory hospital measure (terbeschikkingstelling or tbs)[3] (see also Van Mulbregt, 2011). Although the pre-trial forensic mental health assessments changed over time in style, form and size, the question whether criminal liability was diminished at the time of the offence remained the same. In addition, the assessment of risk also changed over time. In the early years this was solely based on clinical judgement (Koenraadt, 2007), in later decades risk assessment tools were used to evaluate the risk of reoffending and are used to this day (Sierink & Van Mulbregt, 2007). However, although the methods to assess recidivism risk changed, the answer to the question of the likeliness of reoffending did not change over time.

Mental disorder and dangerousness

In the 1950s and 1960s assessments were mainly concerned with the defendant and his or her personal needs and the belief in treatment of disordered offenders flourished (Koenraadt, 2007; Weijers & Koenraadt, 2007). In the Netherlands, criminal law in the post-war period was characterized by paternalism and humanism (Kelk, 2007). Offenders were considered as fellowmen that should be treated with humanity and respect (Kelk &

De Jong, 2013). From a paternalistic, protective view, the reports were written with the best interest of the arsonist at heart. However in the late 1960s till the early 1970s, different social democratization movements contributed to a reorientation in Dutch criminal law (Kelk & De Jong, 2013). Since the beginning of the 1970s a process of growing juridification started, focusing more and more on legal guarantees and protection of the individual against a paternalistic government. This development reflected a growing legalization within (forensic) psychiatry, in which rights and associated legal safeguards for patients and litigants have acquired a central place (See also Kelk, 1983). Although the process of juridification originally ensured the legal status of patients and offenders, in later years their legal guarantees received less attention increasingly limiting patients' rights in favour of the safety of society.[4] So, although the idea of juridification (providing legal guarantees and protection) is still fully present (see Groenhuijsen, 2008), there appears to be a shift with regard to the subjects of that protection from the individual offender to the society as a whole (Brants, Mevis, Prakken, & Reijntjes, 2003). Since the 1990s, a growing need of risk management emerges (Borgers, 2007; Buruma, 2011) that was already seen in other Western industrialized countries (Garland, 2001). Caring for the individual is no longer central, more and more emphasis is laid on keeping society safe. The increasing focus on offence scenarios and the wider use of risk assessment tools is connected to this (Bakker, 2009).[5] A post-war shift from treatment to punishment is also seen in other Western countries, for instance the change in practice of dealing with juvenile offenders in Sweden (Sarnecki, & Estrada, 2006).

Both mental disorder and dangerousness are not exclusive factors, in the sense that other factors also contribute to the conclusions given in the pre-trial forensic mental health reports. Therefore, changes in their importance may occur over time. By analyzing pre-trial forensic mental health reports of alleged arsonists from 1950 to 2010, this article investigates whether changes actually occurred and examines the nature of those changes. It is hypothesized that mental disorder is of greater importance in the conclusions in older reports based on a more paternalistic standpoint – on what is in the best interest of the offender – whilst dangerousness, in the sense of recidivism risk, gains importance in reports from more recent years reflecting a growing tendency for risk management based on what is in the best interest of society as a whole.

Aim

The general aim of this study is to examine the influence of societal changes on pre-trial forensic mental health assessment. More specifically, this study aims to investigate whether hypothesized changes occur in the importance of mental disorder and dangerousness in pre-trial forensic assessments of arsonists, as is manifested in the conclusion on criminal accountability and the pre-trial forensic mental health recommendations in forensic mental health reports, in the period 1950–2010.

Method

Sample

Our sample consisted of 72 arson suspects who were admitted for pre-trial forensic assessments in the main forensic observation hospital in the Netherlands in the period 1950–2010. In this residential setting, suspects were observed and assessed for a period of seven weeks, after which a multidisciplinary report was produced. This forensic mental

health report contains the suspect's social and historical background information, a report of his behaviour on the ward, a brief medical examination, a psychological and a psychiatric assessment (Koenraadt, Mooij, & Van Mulbregt, 2007). Based on these observations a recommendation was given to the court with regard to the suspect and his or her criminal accountability, perceived risk of recidivism and possible measures that could be imposed.

The observation hospital has a national function; virtually all inpatient forensic evaluations are conducted here. Since the founding in 1949, around 11,000 suspects were placed here in order to assess their mental condition in relation to their alleged offence (Hoeffelman, 1962; Koenraadt et al., 2007). Although the severity of the offences in which an inpatient pre-trial forensic mental health assessment was ordered increased over time, arsonists made up an important category of admitted suspects, with about a dozen arson suspects examined each year, a number apparently increasing in recent years (Hoeffelman, 1962; Koenraadt et al., 2007; Noach, 1962).

From a larger sample of arson suspects, 72 cases were selected. Selection of these cases was based on the minimum number of available reports per decade. In the 1960s only 12 reports were available. These cases all concerned men, with a mean age of 31 years. To create equal groups and prevent a skewed distribution of subjects per decade, per remaining decade 12 reports of males with approximately the same age as the 12 male subjects in the 1960s were selected at random. This resulted in a total sample of 72 pre-trial forensic mental health reports of male arsonist with a mean age of 31 years. The reports were divided into two groups; the first group concerned the older reports dating from 1950 to 1979, whilst the second group comprised reports from 1980 to 2010. This distinction in two time-groups was not only practical, but also had theoretical underpinnings with a clear historical shift in perspective on risk and the treatment of forensic patients that could be discerned in the late 1970s, early 1980s (Kelk, 2007).

Cases included in this study have a pre-trial status and individuals thus have not been found guilty of arson at the time of the evaluation. To enhance legibility, despite their pre-trial status, subjects in this study are designated as arsonists.

Procedure

The 72 forensic mental health reports were analysed using a standardized item list, including demographic, psychopathological, social and event-related items as well as the conclusions concerning mental disorders at the time of the offence and the risk of recidivism. Items on this list were partly deducted from distinctions made in the HKT-30, a Dutch risk assessment tool (Ministerie van Justitie, 2003); previous research on inpatient pre-trial forensic mental health reports (Koenraadt, 1996; Koenraadt et al., 2007; Liem, De Vet, & Koenraadt, 2010; Liem & Koenraadt, 2008a, 2008b) as well as arson research literature. Because of the nature of our study (retrospective analysis of reports), missing data were inevitable. To prevent a decrease in power, subjects with missing data were not deleted. Therefore, sample sizes vary.

Mental disorder was measured by the given DSM classification during the pre-trial forensic mental health assessment, as found in the report (either a classification on axis I and/or II, or no classification). Recidivism risk (low, moderate or high) was used as a measure of dangerousness and was based on the assessment of risk provided in the conclusions of the reports. These conclusions also contained the final recommendations (criminal accountability and forensic mental health recommendations). Criminal

accountability was measured on a 5-point scale ranging from completely accountable to completely unaccountable. Diverse forensic mental health recommendations were given. A distinction was made between a special parole condition, a conditional tbs measure (in which tbs is not executed if a person follows the conditions), a tbs measure with compulsory treatment and placement in a psychiatric hospital.

Statistical analyses

Data were analysed using SPSS version 20.0. To test the hypotheses that a mental disorder in earlier decades played a more important role in the conclusion on accountability and the forensic mental health recommendation, whilst dangerousness measured by recidivism risk was of more importance in the later period, Fisher's Exact tests[6] were used as a measure of association because due to our small sample size, requirements for Pearson's χ^2 tests were not met. To identify the nature of the dependence the adjusted standardized residuals (adj. z) in the contingency tables were calculated (Agresti, 2007). Unlike the standardized residual, the adjusted standardized residual takes into account the overall sample size. Under the null hypothesis of independence, each adjusted residual has a standard normal distribution, so residuals with an absolute value of about two or higher (±1.96) – corresponding to a smaller or larger number of cases than expected by chance – indicate that the variables are dependent (Agresti, 2007; Field, 2009).

Results

Conclusions on criminal accountability, risk of recidivism and recommendation

The pre-trial forensic mental health reports end with conclusions on the degree of criminal accountability, the perceived risk of recidivism and a recommendation to the court concerning the imposition of treatment measures like tbs. Table 1 provides an overview of the conclusions and recommendations given in the cases included in our study. The conclusion about criminal accountability differed between the two time periods ($p < .05$, Fisher's Exact). In the first three decades severely diminished accountability was more prevalent, and slightly diminished accountability was less frequently concluded in the first period. So, criminal accountability was deemed reduced to a greater extent in arsonists assessed in the first period. The forensic mental health recommendation given to the court also differed between the two time periods ($p < .001$, Fisher's Exact). In the earlier reports a conditional tbs measure was recommended in over 40% of the cases, while this recommendation was given in only one report from the second period. Further, a special parole condition was more often advised in later years, as was the case with placement in psychiatric hospitals.

Mental disorder in cases of arson

Overall, a significant association between a given DSM classification[7] and the conclusion on accountability was found ($p < .005$, Fisher's Exact). If no DSM classification was present arsonists were mainly deemed sane ($n = 2/5$, adj. $z = 3.5$). A classification on axis I resulted primarily in a conclusion of unaccountability ($n = 6/13$, adj. $z = 3.6$) and if only an axis II classification was present accountability was generally severely diminished ($n = 11/15$, adj. $z = 3.4$). Arsonists with a DSM classification on both axes mostly were diminished criminally accountable ($n = 11/20$, adj. $z = 2.5$). In the first time period, a

Table 1. Differences between the conclusions on criminal accountability, risk of recidivism and legal recommendation in the two time periods (n = 72).

	1950–1979 n = 36	1980–2010 n = 36
Accountability**		
Fully accountable	2	3
Somewhat diminished	1[a]	6[b]
Diminished	13	12
Severely diminished	16[b]	6[a]
Fully unaccountable	3	8
Recidivism risk		
Low	7	5
Moderate	8	8
High	12	18
Cannot be estimated	1	1
Legal recommendation*		
Special parole condition	2[a]	10[b]
Conditional tbs	15[b]	1[a]
Tbs with compulsory treatment	12	10
Placement in a psychiatric hospital	1[a]	6[b]

Notes: Some variables had missing values resulting in a smaller sample size.
*$p < .001$.
**$p < .05$ (two-sided).
[a]The value of the adjusted standardized residual was less than −1.96.
[b]The value of the adjusted standardized residual was greater than 1.96.

given DSM classification was also significantly associated with the conclusion on criminal accountability ($p < .01$, Fisher's Exact), with more conclusions of insanity than expected if only an axis I classification was given (n = 2/5, adj. z = 2.4), more often severely diminished accountability if only an axis II classification was present (n = 9/10, adj. z = 2.9) and less often severely diminished accountability (n = 1/10, adj. z = −2.1). In cases with a classification on both axes diminished accountability was more often (n = 6/9, adj. z = 2.5) and severely diminished accountability less often concluded (n = 2/9, adj. z = −2.4). However, for the last period no significant association could be found between a particular DSM classification and the given conclusion concerning the sanity of the arsonists (see Table 2).

The DSM classification and the forensic mental health recommendation that was given were also associated for the total population ($p < .05$, Fisher's Exact). With axis I classifications, placement in a psychiatric hospital was most often recommended (n = 4/13, adj. z = 3.1). If no classification was given on the DSM, reports ended predominantly with some other advice or no forensic mental health recommendation at all (n = 4/5, adj. z = 3.7). Although an association was found between the advice given and a DSM classification for the six decades together, this relation disappeared when the total population was divided into two groups.

Dangerousness in cases of arson

Neither for the six decades together, nor for the first and last three decades, could a statistically significant relationship between the degree of criminal accountability and the

Table 2. Conclusion on accountability with respect to DSM classification in the different time periods (n = 26 and n = 22).

	Axis I classification	Axis II classification	Axis I & II classification
1950–1979			
Accountability*			
Somewhat diminished	–	–	1
Diminished	2	1[a]	6[b]
Severely diminished	3	9[b]	2[a]
Fully unaccountable	2[b]	–	–
1980–2010			
Accountability			
Fully accountable	–	–	1
Somewhat diminished	1	1	–
Diminished	1	2	5
Severely diminished	–	2	3
Fully unaccountable	4	–	2

Notes: Some variables had missing values resulting in a smaller sample size.
*p < .01 (two-sided).
[a]The value of the adjusted standardized residual was less than −1.96.
[b]The value of the adjusted standardized residual was greater than 1.96.

risk of recidivism be found. In general, low risk of recidivism is related to a conclusion of severely diminished accountability (n = 7/12, 58%), a moderate recidivism risk is mostly connected with diminished accountability (n = 8/16, 50%), and a high risk of recidivism is linked to severely diminished accountability (n = 11/30, 37%) and diminished accountability (n = 9/30, 30%).

When taken together, no significant relationship between recidivism risk and the given forensic mental health recommendation was found. To prevent cells with low values, the item on forensic mental health recommendation was dichotomised (was some form of (conditional) intramural treatment recommended or only a parole condition/no treatment). In the period 1950–1979, no statistically significant relationship was found between recidivism risk and the recommendation. In the last three decades, however, a significant association was found (p < .05, Fisher's Exact). If arsonists had a low recidivism risk, a special parole condition was most often recommended. In reports of arsonists with a high risk of recidivism some form of (conditional) intramural treatment was recommended (mostly a tbs measure; see Table 3).

Discussion

This study investigated whether shifts occurred in the course of time with respect to the weight of mental disorder and dangerousness in cases of arson. From a broader perspective, this study aimed to see whether societal changes concerning forensic mental health and criminal law were reflected in the influence of mental disorder and dangerousness in pre-trial forensic mental health assessments of male arsonists in two time periods. This is the first study that used pre-trial forensic mental health reports as an appraisal tool. Apart from providing insight in contemporary developments, our study contributes to a better understanding of time-related differences in pre-trial forensic mental health assessments.

Table 3. Conclusion on legal recommendation with respect to risk of recidivism in the different time periods (n = 25 and n = 30).

	Low recidivism risk	Moderate recidivism risk	High recidivism risk
1950–1979			
Legal recommendation			
Special parole condition/no advice	1	1	–
(Conditional) intramural treatment	4	7	12
1980–2010			
Legal recommendation*			
Special parole condition	4[b]	3	3[a]
(Conditional) intramural treatment	1[a]	4	15[b]

Notes: Some variables had missing values resulting in a smaller sample size.
*$p < .05$ (two-sided).
[a]The value of the adjusted standardized residual was less than −1.96.
[b]The value of the adjusted standardized residual was greater than 1.96.

The influence of mental disorder

Being diagnosed with a mental disorder is a necessary but not a sufficient condition to conclude criminal accountability is diminished. As was expected, mental disorder was of more influence on the conclusion about sanity in the first period than in the last three decades. Overall and in the first three decades, the given DSM classification was significantly associated with the conclusion on accountability. However, in the last period, no significant relationship between DSM classification and accountability was found. Although accountability is determined exclusively by the presence of a disorder and the way in which this disorder affects the criminal behaviour, there appears to be a shift in the sense that the severity of the disorder has lost some of its influence on the accountability advice, in favour of the way in which a disorder affects the offence. Perhaps in the last three decades, as a result of increased juridification, more attention is paid to the scenario of the offence and non-pathological explanatory models for committing arson.

For the six decades together, mental disorder was associated with the pre-trial forensic mental health recommendations given in forensic mental health reports. The fact that this association disappeared when the sample was subdivided into two groups might be explained by the reduction in sample size and the associated loss of statistical power. Overall, being diagnosed with a mental disorder appears to influence the given pre-trial forensic mental health recommendation.

The influence of dangerousness

No relationship was established between dangerousness and degree of accountability. This is remarkable because not only the role of a mental disorder, but also the conclusion about accountability is of importance in assessing the risk of recidivism (Van Mulbregt, 2011). However, with respect to dangerousness and pre-trial forensic mental health recommendation a trend suggesting association was found for the whole time period and

in the last three decades a significant relationship was found. The lack of statistical association in the first three decades implies that dangerousness was of more importance for the forensic mental health recommendations in the later period. It should, however, be noted that according to Article 37a paragraph 1 Dutch Criminal Code risk of recidivism is a prerequisite for imposition of a tbs measure. The (lack of) statistical association does not alter this legal requirement.

Limitations

First, because of its explorative nature, this study was based on a specific, relatively small sample, balanced on a limited number of available reports in one decade. This limits the representativeness of our sample, because all subjects in that decade were male and for the whole sample females were thus not included. What is more, all subjects stemmed from one national forensic mental hospital. Those admitted here are mostly suspects who are expected to suffer from severe mental disturbances, which carries the risk of a bias towards a more disordered research population (Koenraadt et al., 2007). It must also be kept in mind that methods of risk assessment changed over time, with less room for individual clinical judgement and more emphasis on structured risk assessment. It might be argued that this different method of risk assessment contributed to the difference in outcome. However, this shift in assessment itself also reflects the growing need for control of dangerousness and risk. In addition, differences in indications for and methods of forensic mental health assessment exist between countries (Dressing & Salize, 2006; Nedopil, 2009), limiting the generalizability of our results. On the other hand, the forensic mental health hospital has a national function with practically all inpatient forensic mental health evaluations in the Netherlands being conducted there, increasing representativeness of results for the Dutch situation. What is more, the contemporary forensic mental health changes the Netherlands might well be a reflection of broader trends in other countries in Western Europe (Garland, 2001). Second, the data depended on the completeness of the pre-trial forensic mental health assessment reports. Because of the retrospective nature of our study, the large time period and changes in forensic mental health reporting, missing data on various items was inevitable. Keeping in mind these limitations, caution must be exercised when interpreting the results. In spite of our relatively modest sample size and associated reduction in statistical power, however, our results are unique in that they show differences over time using forensic mental health reports as an appraisal tool.

Conclusion

First of all, both mental disorder and dangerousness are of importance in the pre-trial forensic mental health assessment. However, their influence may fluctuate over time. As was expected, the influence of mental disorder declined and dangerousness has come to play a greater role in the behavioural advice to the judiciary in the course of time. In earlier reports the focus is on treating the disordered offender, whilst in later reports the emphasis is on preventing the dangerous offender to re-offend. A shift can be recognized in the view on the personal responsibility of the observed arsonists, namely from considerations ‘for their own good’ with care and attention for the individual and his needs, to considerations of ‘security’ in which protection of society prevails.

Implications

This study shows an influence of societal tendencies on the field of forensic mental health. Forensic mental health operates within society and conclusions are partly a product of the Zeitgeist. This influence is inevitable, but awareness on this phenomenon can contribute to a refocusing on objectivity. Newer assessment methods, like structured risk assessment instruments are designed and can help to improve objectivity, however being aware of societal influence and striving for objectivity still remains the individual responsibility of the forensic mental health professional. Ultimately he or she makes the decisions that can be of major influence on the life of the assessed.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. Primary fires include all fires in buildings, vehicles and outdoor structures or any fire involving casualties, rescues or fires attended by five or more appliances.
2. The question whether or not free will even exists will be disregarded in this article.
3. Some offenders are (partially) insane. Because of their psychiatric disorder, they pose a danger to society. To protect society, compulsory treatment can be imposed. This is called terbeschikkingstelling. A tbs measure lasts until a judge determines that there is no longer a danger of relapse (see also Van Marle, 2002).
4. The amendments to the Psychiatric Hospitals Act (Wet Bopz) in 2008 with a considerable broadening of coercive capabilities are a good example (see also Legemaate, 2008).
5. Although safety of society appears key, it must not be forgotten that risk assessment tools also take into account what is in the interest of the offender, inter alia by tailoring treatments and making sure treatment does not go beyond what is needed.
6. Fisher's Exact tests are useful in small populations and are normally used in two by two cross-tables but are also applicable in larger contingency tables (Field, 2009).
7. The forensic reports included in this study made use of older versions of the DSM, but were coded using the DSM version IV–TR, therefore a DSM classification refers to a classification based on this version of the DSM (American Psychiatric Association, 2000).

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