



AULIKKI AHLGRÉN-RIMPILÄINEN, MAIJA LINDGREN, PETTERI JOELSSON, NINA LINDBERG

## FORENSIC PSYCHIATRIC CARE OF INTELLECTUALLY DISABLED OFFENDERS DIMINISHES RISK FOR CRIMINAL RECIDIVISM - FINNISH REGISTER-BASED STUDY

### ABSTRACT

**Objectives:** The focus of this study was on the reoffending rate and patterns of severe violent crimes committed by persons with intellectual disability (ID) in the Finnish context of forensic psychiatry. **Materials and methods:** 178 persons with ID (ICD-10 diagnosis code F70-79) were identified from the national register of forensic psychiatric examination (FPE) reports in Finland in 1990-2015. The reoffence data was derived from the Police crime register up until 2020. During the follow-up, missing or deceased persons were excluded from the study. Sociodemographic factors, all diagnoses, types of main crimes and reoffences (homicide, assault, sexual crime, arson/sabotage, property or other crimes), and the conclusions of FPE (criminal responsibility and placement after FPE in homes, prison or involuntary psychiatric or disability care) were collected. **Results:** A total of 56% of the subjects reoffended during the follow-up. They were younger than the non-reoffenders and mostly diagnosed with mild ID. The majority (60%) of the subjects were sentenced to prison after the completed FPE. Prison-placed offenders with ID had an eightfold risk of reoffending compared to those who had been in psychiatric care after the FPE. Compared to the groups with involuntary treatment, prison-placed offenders with ID committed and reoffended most in homicides and assault category crimes. The delay of committing a new crime was the longest in the psychiatric treatment group. Involuntary treatment, especially long-term psychiatric care, and older age at the time of the index crime were protective factors against reoffending. **Conclusions:** Prison sentence after FPE possibly increases risk of criminal recidivism. The high reoffending rate indicates that the needs and risks of perpetrators with ID should be better assessed during the FPE, and afterwards be taken into account in the court decision and social care procedures.

**KEYWORDS:** FORENSIC PSYCHIATRY, CRIME REGISTER, INTELLECTUAL DISABILITY, REOFFENCE

### INTRODUCTION

It has been estimated that around one in ten people with intellectual disability (ID) will come into contact with the police or courts as a perpetrator of a crime (1,2). Compared to the general population, intellectually disabled males have been reported to be three times, and females with ID four times, more likely to have a previous conviction (3). According to a systematic review (4), approximately 0.5–1.5% of prisoners are diagnosed with ID. However, estimating the offending prevalence in prisons is problematic since many offending individuals with ID have been referred to the social and healthcare services rather than prison.

It has been stated that rather than ID per se, comorbid psychopathology and other psychosocial adversities might explain high rates of offending (5). Indeed, there are studies showing that the prevalence of a co-occurring mental illness significantly increases the likelihood of people with ID offending and being a victim of crime (6,7).

Until now, research focusing on reoffending offenders with ID has been somewhat scarce. Klimecki et al. reported an overall recidivist rate of 41% in offenders with ID after serving a sentence in a segregated correctional unit in a Melbourne reception centre. 32% reoffended within six months and 84% reoffended within a year following release. The recidivists were on average younger than non-recidivists

and a substantial proportion of them had a substance use and/or a psychiatric history. The recidivists' first offence categories were most often drug-related (67%), theft/robbery (53%), murder (40%), assault (42%), sex-related offences (31%) and other crimes (52%). Some of the non-violent offenders progressed to violent crimes (26%) and 31% reoffended with a violent crime (8).

The overall risk of recidivism for offenders with ID may be underestimated, because these individuals do not always end up in the criminal justice system, and instead of being convicted, are sentenced to mental health services or probation (9,10). According to data from the New South Wales Department of Corrective Services, the general criminal recidivism rate after conviction for persons with ID was 68%, compared to 38% of the total inmate population (11). Further, criminal recidivism for inmates with ID and with no prior convictions was 1.5 higher than in the general inmate population. In their study Fitzgerald et al. found that the number of previous offences and acquisitive offences, drug and bail offences as well as history of substance abuse were linked to general reconvictions in offenders with ID, likewise in general offender populations, suggesting that attention should be paid more to criminological variables than to clinical ones (12). In a Swedish register-based follow-up study, male offenders with ID presented with a lower risk of criminal recidivism compared to offenders with mental disorders. This finding may reflect a functional legislative background, allowing offenders with ID not only to receive accurate treatment at hospital, but also appropriate open care services after the discharge (13).

Offenders with ID have been reported to present certain patterns of crime typology. Sexual offences (as well as victimization), burglary and violent offences, but not lethal violence like murder, seem to be more common among offenders with ID compared to the offender population in general. It is notable that ID services, among other support systems and environmental factors, may have an impact on the distribution and the type of the crimes that persons with ID commit (14,6,15).

Certain tools (PCL–SV, VRAG, and HCR–20) were found to be applicable to assess the violence risk of offenders with ID (16). In addition, it was found that the conviction rates of persons with ID were lower, even though these people had significantly higher scores on the violence risk assessment instruments used. This may be because the offenders with ID are not treated in the same way as other offenders, even though they may have committed just as many criminal acts (16).

In a Swedish register-based study (17), concerning altogether 7,450 persons who had undergone a pretrial forensic psychiatric assessment from 1997 to 2013, 406 (84%) male and 75 (16%) female offenders with ID were identified. The male ID offenders' risk of committing a sexual crime was 2.7 times greater, and the risk of reoffending with a sexual crime 2.4 times greater, than for male offenders with normal cognition.

The aim of this nationwide register-based follow-up study was to explore criminal recidivism in a consecutive sample of Finnish offenders with ID sent for a forensic psychiatric examination (FPE) during the years 1990–2015. We investigated both general and offence type-specific reoffending in different offender groups: among those who were sentenced to prison and among those were committed to involuntary treatment, either to psychiatric or disability services.

## METHODS

### *OVERVIEW OF THE FORENSIC PSYCHIATRIC EXAMINATION PROCESS IN FINLAND*

The minimum age of criminal liability in Finland is 15 years. If the offence is severe, and if the offender presents with issues possibly lowering the level of criminal responsibility, the court may decide that an FPE is required. The Finnish Institute for Health and Welfare (THL) organizes these examinations, which are inpatient evaluations that last approximately two months, and include data gathered from various sources, psychiatric evaluations, standardized psychological tests, interviews conducted by a multi-professional team, an evaluation of the offender's physical condition and continuous observation by the hospital staff. The examining forensic psychiatrist formulates a detailed written statement for THL, which then prepares its own statement for the court. The court makes the final decision on criminal responsibility. Finnish criminal law recognizes three categories of criminal responsibility: full, diminished and none. Offenders with full or diminished responsibility are sentenced. Offenders with no criminal responsibility are not sentenced but are usually committed to involuntary treatment in mental health services (those with ID and a comorbid psychotic disorder) or in disability services (those with ID without a comorbid psychotic disorder).

The overall high quality and reliability of Finnish FPEs are generally acknowledged (18).

## PROCEDURE AND SAMPLE

Altogether 4,578 FPEs were performed in Finland during the years 1990-2015. Of them, offenders with ID were identified (International Classification of Diseases -Tenth Revision, ICD-10, diagnosis codes F70-71 or F78-79). Altogether 178 offenders with ID were identified (3.9% of all FPEs during the study years). We collected the following parameters from their FPE reports: name, personal identification number, sex, age during the evaluation, the index offence(s) leading to the evaluation, criminal responsibility and the date the evaluation was finished. Additionally, psychiatric comorbid diagnoses were collected. In Finland, the ICD Ninth Revision (ICD-9) (19) was used between 1987 and 1995, and it was replaced by its Tenth version (ICD-10) in 1996 (20). Before further analyses, ICD-9 diagnoses were converted to ICD-10 diagnoses.

The offence leading to FPE was categorized as: 1) homicide (murder or manslaughter), or an attempted homicide, 2) assault (simple or aggravated assault) or an attempted assault, 3) a sex offence (rape or child molestation) or an attempted sex offence, 4) arson or an attempted arson, 5) a property offence (robbery, theft and burglary) or an attempted property offence, and 6) some other crime (including drug smuggling, selling drugs etc.). Many offenders had committed more than just one crime/type of crime, and they were all collected. Hierarchical coding of the offence was used in the order above when inspecting the crime categories.

From the registers of THL, the location where the offender was placed after the forensic psychiatric evaluation was identified (prison, psychiatric hospital, disability services, home).

## FOLLOW-UP

The follow-up began when the forensic psychiatric examination was finished, and ended if the person died (n=32), moved abroad (n=0) or at the latest on 31 December 2018. The information on a person's death or emigration was gathered from the Finnish Population Information System administered by the Digital and Population Data Services Agency.

Data on offences and criminal activity during the follow-up were extracted from the Finnish Police Register, an electronic database holding data on all police contacts since the age of 15 years. This register became nationwide at the beginning of 1995, but it also contains data on criminal acts from previous years (21).

## STATISTICAL ANALYSES

Group comparisons were conducted using Chi-Square or Fisher's exact tests and Kruskal-Wallis tests. The compared groups were those persons with ID who after the FPE were released to their homes, sentenced to prison, or sent to an involuntary psychiatric hospital or to disability services. In addition, groups of involuntary treatment (categories: no involuntary treatment/involuntary psychiatric treatment/involuntary disability services) were inspected.

A binary logistic regression was used to predict the risk of reoffending (reoffence/no reoffence) with the placement after psychiatric evaluation (prison, psychiatric hospital, disability services, home). We adjusted for age (as a continuous variable), sex, and the degree of the ID (mild F70, moderate F71, other F78, F79), as well as the category of the index crime prior to the FPE (homicide, assault, sexual crimes). Persons with severe or profound ID (F72-73) did not exist in the data. Another regression model was conducted using placement in involuntary care (none/psychiatric/disability services) instead of the placement location.

Odds ratios (OR) with 95% confidence intervals (CI) are reported for the regression models. Statistical analyses were conducted with SPSS (version 29.0). All statistical tests were two-tailed, and  $p < 0.05$  was defined as a significant difference.

## ETHICAL CONSIDERATIONS

The study plan was evaluated by the Ethics Committee of the Helsinki and Uusimaa Hospital District, Finland. Permission to conduct the study was granted by the administration of the Helsinki and Uusimaa Hospital District, the Finnish Institute for Health and Welfare, the National Police Board, and the Digital and Population Data Services Agency. The study was performed in accordance with the Declaration of Helsinki. The study data was anonymized for analysis.

## RESULTS

### SAMPLE CHARACTERISTICS

The degree of ID was regarded as mild (ICD-10 code F70) in 133 (75%) cases, moderate (F71) in 14 (8%) cases, and unspecified (F79) in 2 (1%) cases. Further, in 29 (16%) cases, the clinical diagnosis used in the examination report was Other ID (F78). The offenders with ID were mostly men

( $n=153$ ; 86 %) with the mean age of 31.4 years (SD 10.67, range 16–69).

There were 28 (16%) offenders with a comorbid psychosis or psychotic depression (ICD-10: F20, F22, F25, F28, F29, F33.3). Further, 94 (53%) offenders were personality disordered (ICD-10: F60, F61), 9 (5%) had a comorbid non-psychotic depression (ICD-10: F32-34, excluding F32.3, F33.3), 8 (5%) had a comorbid anxiety disorder (ICD-10: F40-43), 5 (3%) exhibited impulse disorders (ICD-10: F63), 3 (8%) ADHD (ICD-10: F90), 2 (1%) paraphilia (ICD-10: F65), 1 (1%) conduct disorder (ICD-10: F91), 1 (1%) emotional disorder (ICD-10: F93) and 1 (1%) tic disorder (ICD-10: F95). Altogether 104 (58%) offenders suffered from a comorbid substance use disorder (ICD-10 codes: F10-19). Only 23 (13%) offenders with ID had no comorbid psychiatric or substance use disorders.

Homicide or attempted homicide was the most common index offence ( $n=87$ ; 49%) followed by arson/attempted arson ( $n=30$ ; 17%), assault/attempted assault ( $n=25$ ; 14%), a sex offence/attempted sex offence ( $n=17$ ; 10%), a property crime/attempted property crime ( $n=12$ ; 7%) and some other crime ( $n=7$ ; 4%).

Focusing on criminal responsibility, 20 (11%) were regarded as fully responsible for their index offence, 87 (49%) showed diminished criminal responsibility, and 71 (40%) lacked criminal responsibility. All offenders with a comorbid psychotic disorder ( $n=28$ ) lacked criminal responsibility and were committed to a psychiatric hospital to receive involuntary psychiatric treatment. Non-psychotic offenders who lacked criminal responsibility were committed to disability services ( $n=37$ ), and 6 persons were released and continued in voluntary care.

### CRIMINAL RECIDIVISM DURING THE FOLLOW-UP

Of all subjects, 99 (56%) reoffended during follow-up. Overall, the mean number of new offences was 17.2 (SD 34.7, range 0–243, median 2). Men (58%) reoffended more often than women (44%) but the difference was not statistically significant (Fisher's exact test,  $p=0.28$ ). The mean age of reoffenders (29.4 years, SD 9.1) was significantly ( $p<0.01$ ) younger than the non-reoffenders (34.4 years, SD 11.9; Mann Whitney  $U=3040.5$ ,  $p=0.01$ ).

Of the subjects sentenced to prison, 76 (72%) reoffended. The mean number of their new offences was 35.5 (SD 44.8, range 1–243, median 17). Of the 28 offenders committed to psychiatric hospital for involuntary psychiatric treatment, 8

(29%) had reoffended during the follow-up, and the mean number of their new offences was 22.6 (SD 39.7, range 1–111, median 4). Regarding those 38 offenders who were committed to involuntary disability services, 12 of them (32%) had reoffended. The mean number of the reoffences among offenders committed to disability services was 12 (SD 13.7, range 1–43, median 2). Three out of the six persons (50%) who were released home after the FPE had reoffended. The mean number of their reoffences in the Police register was 16.7 (SD 13.4, range 7–32, median 11). In the prison group, the rate of reoffending was significantly higher than among persons who had received involuntary psychiatric (Fisher's exact test,  $p<0.001$ ) or disability treatment ( $p<0.001$ ). The other group differences of the reoffending rates in the four placement groups were not statistically significant.

The persons committed to involuntary psychiatric treatment showed the longest time delay between the FPE and the first reoffence (mean 7.2 years, SD 3.37, range 3.8–14.3 years). This delay was significantly longer than in the persons that were sentenced to prison (mean 4.7 years, SD 2.44, range 0.7–14.3; Kruskal-Wallis test,  $p=0.017$ ) or to disability services (mean 4.9 years, SD 3.51, range 0.6–12.1;  $p=0.033$ ). Those placed in their homes reoffended with a delay mean of 3.8 years, SD 0.46, with a range of 3.3–4.3.

Using a logistic regression with the binary outcome of reoffending or not reoffending (Table 1), the results show that persons sentenced to prison were 8 times more likely to reoffend than persons submitted to hospital. Increasing age was a significant protective factor regarding reoffence. The sex, degree of ID and the index crime showed to be non-significant in the model.

Further, another regression model (Table 2) was made with the categories of involuntary care/no care, again controlling for age, sex, category of index crime and degree of ID. Involuntary placement in psychiatric care as well as in the disability services reduced the risk of reoffending when comparing to those who had no involuntary care. Increasing age and diagnosis of moderate ID were protective factors for criminal recidivism.

Table 1. Regression model predicting criminal recidivism during the follow-up, using placement group

	OR	95% CI for OR		p
		Lower	Upper	
Degree of ID (reference category mild)				
Degree of ID moderate	0.23	0.04	1.31	0.098
Degree of ID other	1.23	0.46	3.29	0.686
Age	<b>0.94</b>	<b>0.90</b>	<b>0.97</b>	<b>&lt;0.001</b>
Sex (reference category female)				
Male	1.34	0.48	3.75	0.579
Index crime (reference category homicide)				
Index crime assault	2.89	0.89	9.34	0.077
Index crime sexual	1.35	0.40	4.58	0.634
Index crime arson/sabotage	2.55	0.88	7.42	0.086
Index crime property	6.18	0.87	43.73	0.068
Index crime other	0.42	0.09	2.04	0.285
Placement group (reference category hospital)				
Home	4.22	0.52	34.19	0.177
Prison	<b>7.95</b>	<b>2.79</b>	<b>22.64</b>	<b>&lt;0.001</b>
Disability	1.12	0.32	3.95	0.862

Table 2. Regression model predicting criminal recidivism during the follow-up, using involuntary care versus no involuntary care

	OR	95% CI for OR		p
		Lower	Upper	
Degree of ID (reference category mild)				
Degree of ID moderate	<b>0.18</b>	<b>0.03</b>	<b>0.97</b>	<b>0.045</b>
Degree of ID other	1.28	0.48	3.38	0.621
Age	<b>0.94</b>	<b>0.91</b>	<b>0.98</b>	<b>0.001</b>
Sex (reference category female)				
Male	1.36	0.49	3.78	0.554
Index crime (reference category homicide)				
Index crime assault	2.74	0.86	8.71	0.087
Index crime sexual	1.27	0.38	4.25	0.694
Index crime arson/sabotage	2.25	0.80	6.35	0.124
Index crime property	5.67	0.82	39.18	0.079
Index crime other	0.42	0.09	2.01	0.279
Group (reference category no involuntary care)				
Hospital	0.14	0.05	0.38	<b>&lt;0.001</b>
Disability	0.19	0.07	0.5	<b>&lt;0.001</b>



### OFFENCE TYPE-SPECIFIC RECIDIVISM

[Table 3](#) shows the recidivism rates during the follow-up period by placement group.

*Comparison of the major crime offenders between the prison placement and the treatment groups.*

Among prison-placed offenders, there were more homicide offenders compared to the disability services group (Fisher's exact test,  $p=0.005$ ), but between these groups there were no significant differences regarding the other major crime categories (assault, arson and sexual crimes,  $p>0.05$ ). The prison- and hospital-placed offenders did not show any significant major crime-specific differences ( $p>0.05$ ).

*Comparison of recidivism among the prison-placed and the treatment-placed offenders.*

Among the prison-placed persons, there were more homicide (Fisher's exact test,  $p=0.041$ ) and assault ( $p<0.001$ ) reoffenders than among those placed in the disability services or in hospital (homicide  $p=0.024$ ; assault  $p<0.001$ ). The prison-placed persons did not differ significantly from the treatment groups regarding the sexual or arson type of recidivism.

*Comparison of the major crime offending and recidivism between the two treatment groups.*

Among the offenders in the disability services group, there were marginally more sexual crime offenders (Fisher's exact test,  $p=0.041$ ) and in the hospital group there were more homicide offenders ( $p=0.038$ ). The treatment groups did not show significant differences concerning arson or assault category crimes. The reoffenders in the treatment groups did not show any significant major crime-specific differences.

The main comorbidities of the subjects diagnosed during the FPE are also presented in [Table 3](#).

Table 3. Comorbidities and recidivism by placement during the follow-up period, focusing on the most severe main crimes (major crimes) and summing for the selected crime types are presented. The number of reoffenders refers to the number of people who had repeated the main crimes. Some offenders had committed several crimes in different crime categories.

Data of offenders who were released to home were not presented in this table to avoid identification risk of any person in the small group.

	Placement		
	Prison (n=106)	Hospital (n=28)	Disability services (n=38)
<b>Severity of ID n(%)</b>			
Mild	82 (77)	22 (79)	25 (66)
Moderate	0	0	12 (32)
Other ID	24 (23)	6 (21)	1 (3)
<b>Sex distribution</b>			
Male	93 (88)	23 (82)	32 (84)
Female	13 (12)	5 (18)	6 (18)
<b>Psychiatric comorbidity n(%)</b>			
Substance abuse	73 (69)	17 (61)	16 (42)
Personality disorders	73 (69)	9 (32)	14 (37)
Psychosis or psychotic depression	0	28 (100)	0
No comorbidities	14 (13)	0	8 (21)
<b>Index offence by crime type n(%)</b>			
Homicide	58 (55)	15 (54)	11 (29)
Assault	27 (25)	4 (14)	6 (16)
Arson	17 (16)	4 (14)	10 (26)
Sexual crime	12 (11)	1 (4)	8 (21)
Property crime	28 (26)	5 (18)	5 (13)
Other crimes	54 (51)	11(39)	21(55)
<b>Reoffence by crime type n(%)</b>			
Homicide	15 (14)	0	1 (3)
Assault	56 (53)	1 (4)	5 (13)
Arson	4 (4)	1 (4)	3 (8)
Sexual crime	7 (7)	0	4 (11)
Property crimes	55 (52)	5 (18)	5 (13)
Other crimes	72 (71)	7 (25)	7 (18)



## DISCUSSION

This study was based on nationwide data of forensic psychiatric assessments and the Police crime register in order to investigate the rate and patterns of reoffending among Finnish offenders with ID. Overall, the main finding of this study was the high general reoffending rate, as over half of the persons with ID reoffended during the follow-up, which is somewhat in line with some earlier reports (8,11). The most important finding was that subjects in psychiatric involuntary care were at diminished risk for criminal recidivism, compared to the subjects that were sentenced to prison or committed to disability services. Specifically, prison sentence was associated with a substantially heightened risk of criminal recidivism.

The offenders with ID submitted involuntarily to psychiatric care showed the lowest general reoffending rate (29%), as well as the longest time delay between the forensic psychiatric examination and the new crime (7.2 years, in comparison to 4.7 years in the prison group and 4.9 years in the disability services group). These findings most probably relate to the fact that after having a treated condition of a comorbid psychotic disorder, the tendency to exhibit aggressive symptoms or violent mannerisms based on the mental illness diminishes the risk for endangering behaviour and subsequent involvement in a judicial process. Furthermore, in Finland, forensic psychiatric patients remain in an involuntary psychiatric hospital for approximately 7-10 years, which often means a longer institutional period than an expected crime-specific sentence in prison (22). The number of subjects exempted from incarceration was small and reliable conclusions may not be drawn from their reoffence rates.

Increasing age was found to be a protective factor against reoffence. The finding is in agreement with some non-ID criminal samples, indicating that individual physical, neurobiological, personality-related and psychosocial factors as well as often reduced substance abuse due to ageing may reduce offending due to declining impulsivity (23,24). Additionally, moderate ID was observed to be a protective factor. This most probably reflects the fact that in Finland, offenders with moderate ID are typically sent to intellectual disability services providing rehabilitation and support preventing them from taking future criminal actions, while those with only mild ID are often sentenced to prison, which may increase the tendency to continue with criminal activities. Substance use disorders and personality disorders

were common comorbidities and were diagnosed in over half of the offenders with ID in our data.

About 60% of the study subjects were evaluated as having full or diminished criminal responsibility for their offences, while a minority (nearly 40%) lacked criminal responsibility. Almost 60% were sentenced to prison, which is a much higher rate compared to the 15% rate obtained in the study by Edberg et al. (17). There was also a considerable difference concerning the low placement rate in psychiatric hospital, not quite 16% compared to 54% in Edberg et al. (17). National differences in forensic psychiatric systems and legislation may partly explain these observed differences. Earlier convictions, antisocial personality traits and behaviour as well as substance use disorders may be considerable co-factors that increase the probability of a prison sentence among offenders with ID, as well as in the main offender population.

Approximately a third of the offenders committed to involuntary disability services had reoffended, which was a significantly lower rate compared to offenders placed in prison, but a slightly higher rate compared to persons treated involuntarily in psychiatric hospital, however, this difference between the treatment groups was non-significant. Finnish disability services include intensive rehabilitation unlike prison sentences. The explanation for the finding might be the low length of disability services' treatment. According to an earlier Finnish study (25), involuntary disability care only lasted approximately 2 years, which is a much shorter period than, for example, the average treatment period spent in psychiatric hospital (22). The finding raises the question as to whether the length of involuntary treatment in disability services should be longer, especially as we know that these individuals are multi-problematic with, for example, several comorbidities in the field of substance use disorders and personality disorders. The recidivism of persons with ID and a dual diagnosis is considered high, like among the general prison population. Rehabilitation programmes for offenders with ID should already be initiated in prison and continue following the release (8). The content of the involuntary ID care should also be developed to match individual needs.

While lethal violent crimes are not common for people with ID compared to community populations (14,6,15), in our study homicide was the most common main crime category (55%). Homicide category offences could be seen as a marker of a heightened risk of later criminal recidivism, especially if the placement after FPE was prison. The high rate of homicide offenders (54%) in the hospital group may reflect the severity of an untreated psychiatric illness, because

after involuntary treatment there were no homicide recidivists at all. This raises the question of whether severe mental health disorders in persons with ID remain unrecognized in primary care. The prison placement group reoffended most frequently concerning violent crimes (homicides and assaults). This may partly be explained by not only the confounding influence of the prison environment, but also by often persisting behavioural problems and prevailing social challenges that persons with ID continuously face, especially if they do not receive the support they need. Antisocial personality disorder may have a causal connection with the higher recidivism among the prison-placed persons, but it is also possible that subclinical antisocial personality traits have been reinforced in the prison-placed persons with ID during their sentence.

In the disability services group, there were significantly more sex offenders (21% vs. 4%) and more arsonists (26% vs. 14%) compared to the hospital group. Even though the recidivism rate of sexual and arson crimes appeared accordingly higher in the disability care group compared to the other groups, the differences were not statistically significant. Contrary to previous studies (e.g. 6,14,17) and to our expectations, sexual crimes were not prominent in our study data. Finnish courts principally conduct FPEs mostly for perpetrators who have committed the most severe crimes and are suspected of suffering mental health problems or cognitive disturbances. This preselection may have biased the FPE data, in that persons with ID may not all be accused of some minor crimes, nor sexual crimes, or even submitted to undergo FPE. Offenders with ID might, instead of stepping into the judicial process, be taken care of by disability services or other authorities early in the process. Confounding factors in the proceedings need to be further researched.

### STRENGTHS AND LIMITATIONS

Our data consisted of a nationwide consecutive sample of offenders with ID who were sent for an FPE. The Finnish tradition of thorough FPEs as well as reliable statistics constitute a solid basis on which to conduct register-based studies. All citizens in Finland have a unique personal identification number which allows linkage between registers. Moreover, the follow-up period was relatively long. However, even though the sample was national, the number of offenders remained relatively low. Further, the sample consisted of persons who had committed highly serious offences, exhibiting high levels of psychopathology,

especially substance use and personality disorders. This means that the present study clearly focused on a forensic sample and was not representative of persons with ID in general. Further, we did not have access to data about the length of prison convictions or treatment periods following the FPE.

### IMPLICATIONS

Related to the high recidivism rate, and the obvious connection to prison placement, the time spent under adjusted care and supervision are important factors to take into consideration when persons with ID are involved in criminal processes as perpetrators. Careful forensic assessment and consideration of individual needs related to long-term treatment and care plans are an essential part in preventing recidivism. The special needs of the intellectually disabled prisoners should already be taken into account during and after their sentence.

### Authors

Aulikki Ahlgrén-Rimpiläinen<sup>1</sup>  
Maija Lindgren<sup>1</sup>  
Petteri Joelsson<sup>3</sup>  
Nina Lindberg<sup>2</sup>

<sup>1</sup> Finnish Institute for Health and Welfare, P.O. Box 30, FI-00271 Helsinki, Finland

<sup>2</sup> Psychiatry, Helsinki University and Helsinki University Hospital, P.O. Box 590, 00029 HUS, Finland

<sup>3</sup> University of Turku, Department of Child Psychiatry

### Correspondence

Aulikki Ahlgrén-Rimpiläinen  
Finnish Institute for Health and Welfare  
P.O. Box 30  
FI-00271 Helsinki  
Finland  
aulikki.ahlgren-rimpilainen@thl.fi

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