


Correspondence

Cite this article: Hodgins S, Eronen M, Freese R, Hart S, Mueller-Isberner R, Ross D, Webster C, Tiihonen J (2023). Correspondence regarding De Girolamo et al., 2021 'A multinational case-control study comparing forensic and non-forensic patients with schizophrenia spectrum disorders: the EU-VIORMED project'. *Psychological Medicine* **53**, 3764–3765. <https://doi.org/10.1017/S0033291721004347>

Received: 25 September 2021
Revised: 29 September 2021
Accepted: 4 October 2021
First published online: 2 November 2021

Author for correspondence:
Sheilagh Hodgins,
E-mail: s.hodgins@umontreal.ca

Correspondence regarding De Girolamo et al., 2021 'A multinational case-control study comparing forensic and non-forensic patients with schizophrenia spectrum disorders: the EU-VIORMED project'

Sheilagh Hodgins¹ , Markku Eronen², Roland Freese³, Stephen Hart⁴, Ruediger Mueller-Isberner⁵, Deborah Ross⁶, Christopher Webster^{4,7,8} and Jari Tiihonen^{9,10}

¹Département de Psychiatrie et Addictologie, Centre de Recherche de l'Institut Universitaire en Santé Mentale de Montréal, Université de Montréal, Montréal, Québec, Canada; ²Department of Psychiatry, Vanha Vaasa hospital, Vaasa Central Hospital, Forensic Psychiatry, University of Turku, University of Helsinki, Finland; ³Vitos Haina, Germany; ⁴Department of Psychology, Simon Fraser University, Burnaby, British Columbia, Canada; ⁵Haina Institute of Forensic Psychiatry, Germany; ⁶BC Mental Health and Substance Use Services, Vancouver, British Columbia, Canada; ⁷Department of Psychiatry, University of Toronto, Child Development Institute, Toronto; ⁸Child and Youth Care, University of Victoria, Canada; ⁹Department of Forensic Psychiatry, Niuvanniemi Hospital, University of Eastern Finland, Finland and ¹⁰Department of Clinical Neuroscience, Karolinska Institutet and Stockholm County Council, Sweden

We would like to commend De Girolamo et al. (2021) for their recent VIORMED study that allows for valuable comparison with the results of our previous EU-funded study comparing forensic and general psychiatric patients in Canada, Finland, Germany and Sweden (Hodgins et al., 2007a). Our study, the Comparative Study of the Prevention of Crime and Violence by Mentally Ill Persons (CSMIV) recruited patients from forensic and general psychiatric services in the month preceding discharge and followed them for 2 years, re-interviewing them at 6-month intervals. By contrast, the VIORMED recruited forensic patients with a history of violence and general psychiatric patients with no history of violence. Comparisons of the CSMIV baseline findings and those from the VIORMED provide information about the similarities and differences in forensic and general psychiatric services in the 20 years separating the two periods of data collection (1997–2000; 2018–2020).

As the VIORMED study recruited only patients with schizophrenia, we comment only on the analyses of patients with schizophrenia in the CSMIV. Comparing the forensic samples in the two studies shows that the more recent VIORMED sample included three times more women than the older sample (12% *v.* 4%) and patients were more highly educated (CSMIV only 26% had completed high school). The proportion of patients with antisocial personality disorder was much lower in the recent study (13%) than the older one (27%), suggesting perhaps a growing trend over the past 20 years for the courts to send such offenders to prison rather than a forensic hospital. However, the VIORMED study reported that 6% of the sample presented co-morbid borderline personality disorder, a disorder not assessed in the earlier study. The proportions of patients misusing substances were similar in the two studies: VIORMED 77% lifetime substance use and CSMIV 74% lifetime diagnoses of alcohol and/or drug dependence. The recent study recruited only patients admitted to forensic services following a violent crime, 29% a homicide, while the older study recruited in the forensic hospitals consecutive patients about to be discharged of whom 95% had committed at least one violent crime, 25% homicide. Both the VIORMED and the CSMIV (Hodgins & Müller-Isberner, 2004) studies found that 78% of the forensic patients had previously been admitted to general psychiatry. Thus, forensic samples have changed little over the past 20 years with respect to histories of violent offending, substance misuse and prior treatment in general psychiatry.

Twenty years ago, we were surprised to find that more than three-quarters of the forensic patients had spent considerable time in treatment in general psychiatry. As noted this pathway to forensic care is still the most common today. We were also surprised to find that 18% of the general psychiatry patients had committed crimes and 13% had engaged in aggressive behaviour towards others. Yet our study identified fewer general psychiatry patients with a record of offending than subsequent studies of general psychiatry inpatients with psychosis, for example, one UK study found that 47% of the men and 17% of the women had been convicted of at least one violent crime (Hodgins, Alderton, Cree, Aboud, & Mak, 2007a) while another reported that 46% of male patients had a record of convictions for violence. Some of these studies

also assessed aggressive behaviour and reported that large proportions of patients were engaging in aggressive behaviour towards others (Hodgins et al., 2007b). Even the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) that included patients stable on oral antipsychotic medications for 2 years prior to study entry found that 19% of the men were engaging in aggressive behaviour towards others (Swanson et al., 2006). Prior to admission to first-episode clinics, approximately one-third of patients have records of offending or serious aggressive behaviour towards others (Hodgins, 2017). A study conducted in Victoria, Australia, reported that 73% of patients with schizophrenia who commit criminal offences do so prior to first admission (Wallace, Mullen, & Burgess, 2004). Taken together, these findings suggest that general psychiatric services, including first-episode services, care for significant numbers, albeit a minority, of patients who already have acquired criminal convictions. Importantly, these patients and those with a history of aggressive behaviour could be identified at first admission by self-reports, reports by family members and associates of aggressive behaviour, and criminal records. Unfortunately, there is no robust evidence that services provided by first-episode clinics prevent offending (Stevens, Agerbo, Dean, Mortensen, & Nordentoft, 2013). The VIORMED only sampled such patients once they were admitted to forensic services. Thus, in the 20 years between the VIORMED and CSMIV studies, admission of patients with histories of criminality and/or aggressive behaviour towards others to general psychiatric services does not appear to have changed despite the introduction of specialized services for persons presenting a first episode of psychosis.

The importance of this observation is highlighted by the findings of the CSMIV. The men with schizophrenia in the forensic and general psychiatric samples were similar with respect to the proportions born outside the site country, age and prevalence of lifetime diagnoses of alcohol and drug abuse and dependence. More of the forensic than the general patients had not completed high school, displayed a pattern of antisocial behaviour since at least mid-adolescence as indexed by antisocial personality disorder, and had histories of non-violent and violent crimes. At discharge and throughout the 2-year follow-up period, general patients displayed higher levels of positive and negative symptoms than forensic patients, and more of them engaged in aggressive behaviour towards others. Rates of readmission were similar for the two groups. These findings may be interpreted to suggest that patients engaging in aggressive and/or antisocial behaviours at first episode of psychosis could benefit from the types of treatment provided by forensic services. The older study also found that the forensic and general patients did not differ in risk of future aggressive behaviour as indicated by total scores on the Historical-Clinical-Risk (HCR-20) (Webster, Douglas, Eaves, & Hart, 1997). However, the risk for the forensic patients was conferred by their historical scores, while the risk for the general patients was conferred by elevated clinical and risk scores.

Results of the CSMIV and VIORMED studies may be interpreted to suggest that in the 20 years between the two periods of data collection, pathways into forensic care show little change. Many studies conducted during these 20 years show that among individuals treated in first-episode services, there is a significant minority who might benefit from additional components of treatment focusing on their aggressive and antisocial behaviours, including substance misuse, in addition to the components of treatment directly targeting schizophrenia symptoms, psychosocial and cognitive functioning.

Financial support. JT has participated in research projects funded by grants from Eli Lilly and Janssen-Cilag to his employing institution. JT reports personal fees from Eli Lilly, Janssen-Cilag, Lundbeck, Orion and Otsuka; and is a member of the advisory board for Lundbeck. No author received funds to support the preparation of this letter.

References

- De Girolamo, G., Iozzino, L., Ferrari, C., Gosek, P., Heitzman, J., Salize, H. J., ... Macis, A. (2021). A multinational case-control study comparing forensic and non-forensic patients with schizophrenia spectrum disorders: The EU-VIORMED project. *Psychological Medicine*, 1-11. <https://doi.org/10.1017/S0033291721003433>.
- Hodgins, S. (2017). Aggressive behavior among persons with schizophrenia and those who are developing schizophrenia: Attempting to understand the limited evidence on causality. *Schizophrenia Bulletin*, 43(5), 1021-1026. doi: 10.1093/schbul/sbx079
- Hodgins, S., Alderton, J., Cree, A., Aboud, A., & Mak, T. (2007a). Aggressive behaviour, victimisation and crime among severely mentally ill patients requiring hospitalisation. *British Journal of Psychiatry*, 191(4), 343-350. doi: 10.1192/bjp.bp.106.06029587
- Hodgins, S., & Müller-Isberner, R. (2004). Preventing crime by people with schizophrenic disorders: The role of psychiatric services. *British Journal of Psychiatry*, 185, 245-250. doi: doi.org/10.1192/bjp.185.3.245
- Hodgins, S., Müller-Isberner, R., Freese, R., Tiihonen, J., Repo-Tiihonen, E., Eronen, M., ... Levander, S. (2007b). A comparison of general adult and forensic patients with schizophrenia living in the community. *International Journal of Forensic Mental Health*, 6(1), 63-75. doi: doi.org/10.1080/14999013.2007.10471250
- Stevens, H., Agerbo, E., Dean, K., Mortensen, P. B., & Nordentoft, M. (2013). Reduction of crime in first-onset psychosis: A secondary analysis of the OPUS randomized trial. *The Journal of Clinical Psychiatry*, 74(5), e439-e444. doi: 4088/JCCP12mo8156
- Swanson, J. W., Swartz, M. S., Van Dorn, R. A., Elbogen, E. B., Wagner, H. R., Rosenheck, R. A., ... Lieberman, J. A. (2006). A national study of violent behaviour in persons with schizophrenia. *Archives of General Psychiatry*, 63, 490-499. doi: 10.1001/archpsyc.63.5.490
- Wallace, C., Mullen, P. E., & Burgess, P. (2004). Criminal offending in schizophrenia over a 25-year period marked by deinstitutionalization and increasing prevalence of comorbid substance use disorders. *American Journal of Psychiatry*, 161(4), 716-727. doi: doi.org/10.1176/appi.ajp.161.4.716
- Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). *HCR-20: Assessing risk for violence (version 2)*. Burnaby, BC, Canada: Simon Fraser University, Mental Health, Law, and Policy Institute.