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Psychiatric Post: Outcomes Following Discharge Forensic Psychiatric Patients from the Clinic

Julia Sieß^{*, a}

^a Institute of Forensic Psychiatry, LVR-Klinikum Essen, Essen, Germany.

* Corresponding Author: Dipl.-Psych. J. Sieß. Email: Julia.Siess@uni-due.de.

For decades, the number of patients who are accommodated in forensic psychiatric facilities is increasing - not only in Germany but also in other countries. Some authors are already speaking of a re-institutionalization of psychiatric patients (Priebe et al. 2005). However, the benefits of accommodating keep some researchers previously for insufficient evidence. In British Journal of Psychiatry now appeared a systematic review with meta-analysis of Fazel et al. (2016), were analyzed in the outcomes after discharge forensic psychiatric patients and compared with data from other groups. As previously existed only individual studies, observing the patients after their release, these studies were combined to provide an overview of the state of research.

Relevant primary studies were identified through a systematic search in electronic databases and by hand searches. The computer-based literature review included the search for publications in 11 different electronic databases (z. B. PubMed, Google Scholar, ProQuest Dissertations and Theses) defined by March 2013. By means Searches publications were traced, forensic patients after their discharge from a observed clinic and results on mortality, readmissions

or relapses reported. In addition, the literature references of identified studies were searched for additional matching literature. Articles that were not written in English, have been translated. The quality of the identified studies was assessed using a rating scale (Newcastle-Ottawa Quality Assessment Scale for Cohort Studies).

In the review only observational studies were included. Studies in which validated forecasting tools or interventions were evaluated were excluded in order to avoid a distortion of the results due to sample selection.

From the primary studies in addition to the main findings and data to the background of the study and the sample was extracted. Since the time period during which the patient a study were observed varied from study to study, the common measure of person-years was selected for the synthesis of the data. Person-years were calculated as the product of the number of patients and the median of the follow-up periods of all primary studies. They are the years of observation time per person or the sum of the risk of times for each individual. The respective rates (z. B. the death rate) were calculated by the number of events in relation to the person-years, d. H. Risk time set.

About the raw data, a meta-analysis

was calculated using the "random effects" model. This pooled estimates were determined for mortality, suicidal tendencies, recoveries and relapses. The "random effects" - model are all studies similar weight and produces an estimator of the heterogeneity of the studies. Moreover, in addition comparisons z. B. with prisoners or general psychiatric patients were performed with other groups.

Von 182 durch die Suche identifizierten und möglicherweise relevanten Publikationen wurden 35 Studien aus 10 verschiedenen Ländern (England und Wales, USA, Schweden, Australien, Neuseeland, Italien, Kanada, Japan, Norwegen) in den Review eingeschlossen. Die Publikationen stammten aus den Jahren 1982–2013 und umfassten insgesamt 12.056 Patienten, von denen 53% Gewaltdelikte begangen hatten. Im Durchschnitt waren die Patienten 34,5 Jahre alt. Zu 75% handelte es sich um männliche Patienten. Follow-up-Messzeitpunkte lagen für die Mortalität zwischen 1,5 und 13,6 Jahren, für Wiederaufnahmen zwischen 1,8 und 9,4 Jahren und für Rückfälle zwischen 1,5 und 13,6 Jahren. In den Primärstudien wurden verschiedene Quellen genutzt, um Informationen zum Followup zu sammeln, z. B. Klinikunterlagen,

Unterlagen der Gerichtsmedizin oder nationale Datenbanken.

Mortality

Eight primary studies reported results for mortality in 9 cohort (n = 2226); Two additional studies reported only suicides (n = 4502). The absolute number of deaths was 368, of whom 143 (39%) suicides. The pooled estimate for the crude death rate was 1538 per 100,000 person-years or people per year (95% confidence interval [95% CI]: 1175-1901). In other words: If one track 100,000 patients a year, would in 1538 die from it. For England and Wales, mortality was slightly lower than for the other countries. Results for suicidality were presented from 6 studies. The suicide rate was 325 per 100,000 person-years (95% CI: 235-415).

The 6 studies were identified that compared mortality in groups reported, including released prisoners or general psychiatric patients (n = 7,667,645). The rates ranged depending on group 850-3344 per 100,000 person-years for all-cause mortality and 155-561 per 100,000 person-years for the suicide rate. The mortality rate of released forensic patients was higher than the rate of released prisoners and was similarly high as the mortality rate of patients with disorders of the schizophrenic spectrum.

Recovery

Twenty studies of 21 cohorts were concerned with re-admissions of patients in a clinic (n = 3522). The absolute number of readmissions was 1171. The raw data ranged 2926-16461 revivals per 100,000 person years. The pooled estimate was 7208 revivals per 100,000 person-years (95% CI: 5.916 to 8.500). the percentage

of the variation between studies, which does not come by chance, but by heterogeneity existence - - However, the heterogeneity was with $I = 92\%$ are highly valued. By meta-regression analyzes potential sources of heterogeneity were examined. It showed: studies with a higher proportion of mentally ill patients reported a higher recovery rate than studies with a higher proportion of patients with antisocial personality disorder. In addition, a (statistically not significant) trend returned to patients were admitted with prolonged hospital stay more again. Other characteristics such as age or type of offense made no significant contribution to the explanation of the heterogeneity.

Compared with other studies, the highest recovery rate showed for outpatients offenders with mental disorders. However, hardly observational studies were found, report the rate for general psychiatric patients, so that a comparison was difficult.

Relapses

There 30 primary studies were identified that reported on criminal relapses. The rates ranged from 0 per 100,000 person-years to 24,244 per 100,000 person years. The pooled estimates of relapse rate was 4484 per 100,000 person-years (95% CI: 3679-5287). The heterogeneity was very high, which partly could be explained by the fact that previous studies showed higher rates.. Other features contributed no significant contribution to educating high heterogeneity.

The relapse rate of dismissed prisoners was related to recidivism of forensischpsychiatrischen patients. In this laid-forensic patients showed a lower relapse rate. The prevalence ratios ranged from 1.4 to 7.7 in English

studies, 1.9 to 4.1 in studies from the United States and 2.7 to 5.0 in the Swedish studies.

The authors speculated that the increased mortality of released forensic patients probably (smoking, substance abuse), and unequal access to health services could be in a rather unhealthy lifestyle. According to the authors clinics should also target its interventions on health behavior. The high suicide rate should get more attention.

Conclusions on the resumption rates were difficult because the numbers between the studies varied widely. One possible explanation could be that the proportion of patients with mental illnesses and personality disorders between studies varied widely. The higher the proportion of mental disorders, the higher the recovery rate. In addition, the regulations of each country for a resumption distinction. It also lacked background information: In the primary studies was usually not stated whether the resumption was carried out in a forensic or in a general psychiatric hospital.

Also with regard to relapses incidence rates for primary studies differed greatly. Explanations, the authors could not find. However, there was evidence that forensic patients lower relapse rates than prisoners. It must be noted that prisons and forensic psychiatric patients differ in a variety of characteristics (offenders with minor offenses such as drug offenses, which have a higher risk of relapse, are for example more in prison than in the forensic psychiatry).

Overall, the companies included in the review and meta-analysis of studies published very heterogeneous, making it difficult to data aggregation and further conclusions. Many background information that could shed light on the reasons for the difference in results

were not reported in the primary studies. The studies also came from the years 1982-2013, which makes comparisons between cohorts since have changed treatment measures over time. The involvement of different countries complicates the synthesis of the data - the institutions, admission criteria and treatments differ sometimes significantly from one another. Problems that already appeared in the primary studies, also could not solve the Review: For example, no status for follow-up time of measurement could be determined in the primary studies for some patients, so some unfavorable outcomes may not be received in the results. In addition, the majority of primary studies took their data retrospectively from files.

Although the meta-analysis by Fazel et al. provided interesting results, are still too few and too heterogeneous studies to get a meta-analysis to final reviews, in particular the usefulness of forensic psychiatric treatment.

Compliance with ethical guidelines

Conflict of interest J. Sieß indicates that no conflict of interest.

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