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A Comparison of Inpatient Adult Psychiatric Services in Italy and Canada

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Abstract

We examine the possibility the Organisation for Economic Co-operation and Development (OECD) bed count for Italy may be an underestimation of the actual beds available. We compared bedded services for mental disorders in two regions in Italy and Canada respectively. We found out that if we consider acute psychiatric beds only, the district of Ferrara has 30 beds (8.5 per 100,000) and the Middlesex and Elgin Counties have 89 beds (16.3 beds for 100,000). However, if we include the rehabilitation beds (that are located within a hospital setting in Ontario and in a residential community setting in Ferrara), we find that the district of Ferrara has 95 beds (27.0 per 100,000) and the Middlesex and Elgin Counties have 176 beds (32.3 per 100,000). As a result, the 10/100,000 beds rate for Italy reported by the OECD is an underestimate compared to figures reported for most other countries, as the beds included are hospital beds only.

Keywords Psychiatric admissions · Epidemiology · Canada · Italy

Introduction

Data from the Organization for Economic Cooperation and Development (OECD) for 2014 show that Italy has 10 psychiatric hospital beds per 100,000 population (OECD iLibrary). These beds are located in small psychiatric units within General Hospitals. This arrangement is the consequence of the National Project for Mental Health (Progetto

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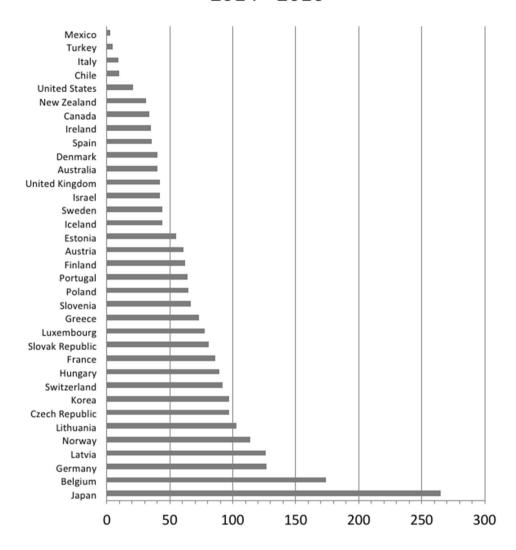
Nazionale Salute Mentale; Ministero della Salute 1999). Most Western countries report a significantly higher psychiatric inpatient capacity. The OECD indicates that the United States has 22 beds per 100,000; Canada 35 beds per 100,000; Australia 39 beds per 100,000 and the United Kingdom 46 beds per 100,000 (see Fig. 1).

One might expect, based on these reported differences in the availability of inpatient psychiatric care, that Italian hospitals would be under severe pressure in comparison to their western equivalents. However, the available evidence suggests that the opposite may be true. Psychiatric units in Western countries, including the United States, are overcrowded, running close to and sometimes over 100% capacity (Teitelbaum et al. 2016). The demand for psychiatric care is so great that in many locations patients who have been accepted for admission often must "board" in emergency rooms, sometimes for several days (Swartz 2016; Bloom 2015; Alakeson et al. 2010; La et al. 2016). Many of these patients are on involuntary certificates indicating that their admission is considered essential (Simpson et al. 2014). Even when a bed is eventually found, the ongoing pressure to admit patients from the overcrowded emergency rooms severely restricts the time a patient can stay in hospital. The resulting ultra-short admissions do not permit comprehensive assessment or adequate treatment and discharge planning (Allison and Bastiampillai 2015; Glick et al. 2011). Of



Fig. 1 Psychiatric care beds per 100,000 population, 2014–2016

Psychiatric care beds per 100,000 population, 2014 - 2016



OECD (2017), Hospital beds (indicator). doi: 10.1787/0191328e-en (Accessed on 05 September 2017)

major concern is the trend to discharge patient from hospitals to homeless shelters (Forchuk et al. 2006). Indeed, in some instances, discharge to homelessness is encouraged as method to free up inpatient capacity (Gordon and Dawel 2014). Although Italian mental health system has some deficits (De Girolamo et al. 2007a; Altamura and Goodwin 2010), it appears to produce outcomes at least equivalent to those reported by other developed countries (De Girolamo et al. 2007a; Morzycka-Markowska et al. 2015).

If Italy can achieve equivalent outcomes with one quarter to one-half the beds available to other countries, perhaps Italy's community mental health services have innovative programs or are more efficient than those of other countries. A number of comparisons of the mental health

services of Italy and other countries have been undertaken (Dumont and Dumont 2009; Jones 1996) but none have identified differences in community services that could account for Italy's ability to run mental health services with fewer beds.

Other factors, such as differences in the prevalence of psychiatric disorders or cultural influences may explain Italy's ability to manage with fewer inpatient services. Indeed there is some evidence that psychotic disorders, which are responsible for a large portion hospital admissions, are less prevalent in Italy than in North America or northern European countries (Lasalvia et al. 2014; Tarricone et al. 2012). It is also possible that the more prominent role played by family in Italy compared to northern Europe or North



American (Viazzo 2003), may reduce the need for hospital admission.

In this paper, we examine another possibility; that there may not be real differences in bed availability between Italy and other Western countries. We hypothesize that the OECD bed count for Italy may be an underestimation of the actual beds available. To this end, we have used a descriptive analysis of the availability of bedded services for mental disorders in comparable regions in Italy and in Canada.

Methods

We compared the services provided in the district of Ferrara (Provincia di Ferrara) in Northern Italy, with services provided in Middlesex and Elgin Counties in Ontario, Canada. Middlesex County contains the city of London, which is similar in size to Ferrara and, like Ferrara, is a university town with a medical school. The Ferrara region includes a sizeable rural area, so we included the Elgin County, a rural county adjacent to Middlesex County, in the Canadian component of the study. We collected data from each study area on population; numbers of hospitals; numbers of beds per hospital; numbers of admissions per year; length of stay and diagnostic profile. We were also able to obtain data on patients from each region who received psychiatric care in private psychiatric hospitals. All data were provided by the Chiefs and administrators of each public and private hospital examined. Since Geriatric and Forensic psychiatric care is carried out very differently in Italy and Canada, we have excluded Geriatric and Forensic beds from our bed counts, to make our data more comparable.

All authors certify that (a) that they accept responsibility for the conduct of the study and for the analysis and interpretation of the data, (b) that they helped write the manuscript and agree with the decisions about it, (c) that they meet the definition of an author as stated by the International Committee of Medical Journal Editors, and (d) that they have seen and approved the final manuscript. All the authors also certify that neither the article nor any essential part of it,

including tables and figures, will be published or submitted elsewhere before appearing in the Journal.

Results

Population Base

The province of Ferrara has a population of 351,436 (2016; ISTAT 2017). In contrast, Middlesex county has a population of 455,526 (2016; Canadian Census 2011) and Elgin county, a population of 88,978 (2016; Canadian Census 2011).

Hospitals Providing Psychiatric Services for Adults

There are two acute psychiatric units in the general hospital in the Ferrara region: one in "Sant'Anna" University Hospital in the city of Ferrara, and the other in the "Delta" Hospital in Lagosanto (Ferrara Southern-Eastern district), both of which have 15 beds. In Middlesex County, London Health Sciences Centre (LHSC) has 74 designated adult beds and provides inpatient care for the assessment and treatment of acute psychiatric disorders. The Parkwood Institute Mental Health Care Program (PIMH), governed by St. Joseph's Health Care London, is also located in Middlesex County and has 87 designated psychiatric adult beds, which provide tertiary longer-term mental health care. The St. Thomas Elgin General Hospital (STEGH), which has 15 psychiatric beds for acute adult admissions, is located in Elgin County.

Number of Admissions to Hospital Psychiatric Units

The number and duration of admissions per year for each of these psychiatric units in 2015 is shown in Table 1.

Admissions to Other Psychiatric Facilities

While not formally considered hospital units, Ferrara has three residential psychiatric rehabilitation facilities, located in free-standing buildings which are part of the

Table 1 Numbers of admissions and length of stay in 2015

	Beds	Admissions/year	Average LOS	Median LOS	Range LOS
Italy					
St. Anna	15	544 (for 380 pts)	9.6	7	1-84
Delta	15	377 (for 274 pts)	13.3	11	1–78
Ontario					
LHSC	74	1655	16.8	8	1-347
PIMH	87	722	76.15	38	1-4564
STEGH	15	524	7.5	NA	1–122

In some hospitals, the data represents a 12-month period that includes part of 2014



community-based network of psychiatric services of the Department of Mental Health and they are not part of any hospital system. As indicated in the National Mental Health Project (NMHP) the nonhospital residential facilities have the aim to strengthen research activities in the new context of community mental health care (Picardi et al. 2014). These units have a maximum 20 beds according to the Mental Health National Italian Project, admit patients (who stay all day and night and who are in a sub-acute or chronic phase of mental illness) for rehabilitation purposes, and provide variable periods of residential psychiatric recovery-oriented treatment. The number of beds, admissions and length of stay in Residential Rehabilitation Treatment Units for 2015 is shown in Table 2.

Admissions to Private Psychiatric Units

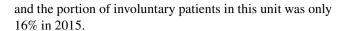
Ontario has only one private psychiatric hospital, the Homewood Health Centre, which is located in Guelph, approximately 100 km from London, Ontario. Homewood Health Centre has 293 beds of which 105 are dedicated to the treatment of addictions. In 2015, Homewood had 86 admissions from Middlesex County and 12 from Elgin County for a total of 98 admissions (Dr. Brian Furlong, personal communication). Of these admissions 64 were to the specialized addiction program at Homewood. The region of Emilia Romagna (where the Province of Ferrara is located) has six private psychiatric facilities that cater for the whole region (catchment area: 4.45 million people). In 2015, they had a total of 71 admissions from the residents in the Province of Ferrara. There is no set number of private psychiatric beds in the Ferrara district as these vary depending on agreements with local health units.

Number of Involuntary Admissions

A notable difference between the bedded services in Canada and Italy is the low numbers of involuntary patients in Italy. In Canada 87% of patients at LHSC, 69% at PIMH and 58% at STEGH were admitted involuntarily in 2015. In Italy only St. Anna University Hospital accepts involuntary patients

Table 2 Numbers of admissions and length of stay in Italian rehabilitation units in 2015

	Beds	Admissions/ year	Average	Median	Range LOS
Short-term	15	110 (for 73 pts)	48.2	30.5	1–591
Medium-term	15	122 (for 70 pts)	40.6	28.5	1–385
Long-term	35	47 (for 37 pts)	163	124	1–4069



Beds per 100,000 Population

When we limit the analysis to beds located in the psychiatric units of general hospitals in the province of Ferrara (there are 30 beds overall), we arrive at a figure of 8.5 beds per 100,000 per capita. The addition of the three residential psychiatric rehabilitation facilities (a further 65 beds) increases the total bed number to 95 or 27.0 "beds" per 100,000.

If we make the calculation in Ontario, we find that there is a combined total of 176 adult psychiatric beds in the general hospitals psychiatric units in Middlesex and Elgin county and in the free standing psychiatric hospitals in Middlesex county. Using this figure as the numerator results in a figure of 32.3 beds per 100,000, as the total population of Elgin and Middlesex counties is 544,504 (Canadian census). If we consider only the acute psychiatry beds in Middlesex and Elgin County (89 beds overall), the bed ratio is 16.3 per 100,000.

Most of the admissions to the private hospital in Ontario were to the specialized addiction program and these patients would not be admitted to inpatient care in Middlesex or Elgin counties. We do not have any data on the reasons for admission to the private psychiatric facilities in Italy.

Discussion

This study demonstrates some of the difficulties comparing health services data between international jurisdictions. The OECD data suggests that Canada has more than three times the number of psychiatric beds that Italy does. Restricting analysis to acute beds in general hospital psychiatric units provides a per capita figure of 8.5 per 100,000 in Ferrara as opposed to 16.3 per 100,000 in Ontario. In Ontario, a significant portion of psychiatric rehabilitation services are provided through hospital-based programs, either in free-standing psychiatric hospitals or in specialized units in general hospitals. In contrast, Italy provides residential psychiatric rehabilitation in free-standing units that are not associated with hospitals, but are considered part of the community psychiatry system. They are staffed by clinicians who are part of a community psychiatric team working under the umbrella of the Department of Mental Health (of which the general hospital inpatient psychiatric unit is also part). However, as patients admitted to the general hospital psychiatric unit can be transferred, after the acute phase, to the rehabilitation residential facility, the characterization of these placements as hospital or community based is not easy (Preti et al. 2009). In part, this is a consequence of the reforms of the Italian mental health system because of Law 180 which prohibited free-standing psychiatric hospitals (De



Girolamo et al. 2007b). If these residential treatment places are added to the general hospital units in the province of Ferrara, it provides a per capita number for psychiatric beds of 27.0 per 100,000. Furthermore, there are differences of the organization according to the clinical phase of psychiatric illness, with Italian general hospital inpatient psychiatric unit dedicated to the treatment of acute phases of illness, while the residential facilities are proposed to the rehabilitation treatment in sub-acute or chronic phases of the illness.

There is also regional variation in Italy in the number of public hospital beds and of rehabilitation residential treatment beds (De Girolamo et al. 2007b). Northern Italy has more public hospital beds compared to the south but this difference is offset at least in part by higher numbers of private psychiatric beds in the south (De Girolamo et al. 2007b). The number of residential beds was 29 per 100,000 in 2006 (De Girolamo et al. 2007b), which is substantially higher than the current number in Ferrara and may include long-term placements that are not associated with active treatment for people with severe mental illness. The three residential units in Ferrara have a mean length of stay that varies from 41 to 163 days suggesting that they are not been used as permanent homes for patients.

The region of Emilia Romagna has six private psychiatric hospitals compared to one in Ontario. There are problems with respect to the analysis of private psychiatric facilities, since our Italian data regard the private facilities in the regional system, rather than the town. Data from the province of Ferrara indicates that the department of mental health can admit patients to six accredited facilities in the Region Emilia Romagna but only for voluntary treatment. However, few if any private facilities have a defined catchment area. Rather, they admit patients from different parts of the country, and not only from the Emilia-Romagna region. The diagnostic profile, severity of illness and type of treatment provided in the private hospital is also unclear. This makes comparisons and correlations between public and private facilities difficult (De Girolamo et al. 2007b).

There are two groups of patients that are typically admitted to psychiatric units in Canada but not in Italy. One group is those individuals with dementia and behavioral problems who cannot be managed in a community setting. In Italy, these individuals are usually treated by specialists in neurology or geriatric medicine in general hospital wards, with possible referral to consultation-liaison psychiatry if necessary. The second group is children and adolescents who in Italy are usually admitted to pediatric wards in the general hospital if they need hospital care due to acute psychiatric disorders, with the supervision of child psychiatry team on consultation basis or, seldom, and only for individuals between 14 and 18 years of age, with a possible transfer to the general hospital inpatient psychiatric units, if the behavioral symptoms of

the disorder are not manageable by the general hospital pediatric units. (Santone et al. 2005; Pedrini et al. 2012).

When we include the bed counting in residential treatment facilities in Italy, in addition to the hospital beds, the psychiatric beds per capita in Italy and Canada may be similar

Many assumptions are made along the way leading to this conclusion. One major assumption is that individuals receiving treatment in the residential psychiatric rehabilitation units in Italy are comparable to patients receiving psychiatric treatment in tertiary care psychiatric hospitals in Ontario. We need to be cautious about this assumption as the percentage of involuntary patients in the tertiary psychiatric hospitals is higher. This is almost 70% in the study hospital, Parkwood Institute Mental Health Care program in London, whereas no involuntary patients stay at Italy's psychiatric rehabilitation units. In general, involuntary admissions in Italy are notably less than that in Ontario. It may be possible that differences in legislation and psychiatric practice may be responsible for those differences (Salise et al. 2002). This is an area that requires further study.

The study has a number of limitations: first of all, we decided to focus on adult Mental Health and did not include specialized beds such as the one in Forensic and Geriatric units. This may have skewed our results. Also, some patients get access to private hospital by paying the full cost of the admission. These patients have not been captured in our analysis. However, given the potential high cost of private inpatient stay, we assume that there will not be many people who used this route to admission. A last issue regards the possible differences in the organization of mental health care within the single country, with data showing both in Italy (Lora 2009; Lora et al. 2014) and in Canada (Lin et al. 2016) variations in terms of hospital psychiatric care.

We can draw some conclusions from our study. First, international comparisons of psychiatric bed numbers are inherently difficult because of different definitions of what is considered a psychiatric bed. One needs to look at other facilities that may have different purposes. In Italy, specialized psychiatric long-term care rehabilitation is carried out in small community rehabilitation units that are not designated as hospitals, rather are considered part of the community psychiatry network of mental health services. This is in contrast with Ontario, where the long-term care is carried out in specialized mental hospitals. As a result, the 10per 100,000 beds rate for Italy reported by the OECD is an underestimate compared to figures reported for most other countries, as the beds included are hospital beds only. We also conclude that remarkable differences in the rates of involuntary treatment between Ferrara and Elgin/Middlesex requires further study, as it can help understand differences in practice and service delivery.



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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

References

- Alakeson, V., Pande, N., & Ludwig, M. (2010). A plan to reduce emergency room "boarding" of psychiatric patients. *Health Affairs*, 29, 1637–1642.
- Allison, S., & Bastiampillai, T. (2015). Mental health services reach the tipping point in Australian acute hospitals. *Medical Journal of Australia*, 203, 432–434.
- Altamura, A. C., & Goodwin, G. M. (2010). How law 180 in Italy has reshaped psychiatry after 30 years: past attitudes, current trends and unmet needs. *British Journal of Psychiatry*, 197, 261–262.
- Bloom, J. D. (2015). Psychiatric boarding in Washington State and the inadequacy of mental health resources. *Journal of the American Academy of Psychiatry and the Law, 43*, 218–222.
- Canadian Census (2011). Retreived from http://www.statcan.gc.ca). Accessed 1 September 2017.
- De Girolamo, G., Barbato, A., Bracco, R., Gaddini, A., Miglio, R., Morosini, P., Norcio, B., Picardi, A., Rossi, E., Rucci, P., Santone, G., Dell'Acqua, G. & PROGRES-Acute Group. (2007b). Characteristics and activities of acute psychiatric in-patient facilities: National survey in Italy. *British Journal of Psychiatry*, 191, 170–177.
- De Girolamo, G., Bassi, M., Neri, G., Ruggeri, M., Santone, G., & Picardi, A. (2007a). The current state of mental health care in Italy: Problems, perspectives, and lessons to learn. European Archives of Psychiatry and Clinical Neuroscience, 257, 83–91.
- Dumont, M. P., & Dumont, D. M. (2009). Deinstitutionalization in the United States and Italy. *International Journal of Mental Health*, 37, 61–70.
- Forchuk, C., Russell, G., Kingston-Macclure, S., Turner, K., & Dill, S. (2006). From psychiatric ward to the streets and shelters. *Journal of Psychiatric & Mental Health Nursing*, 13, 301–308.
- Glick, I. D., Sharfstein, S. S., & Schwartz, H. I. (2011). Inpatient psychiatric care in the 21st century: the need for reform. *Psychiatric Services*, 62, 206–209.
- Gordon, Z., & Dawel, I. (2014). A review of current operations to improve access to inpatient mental health beds. London Health Sciences Centre, April 27th, 2014.
- ISTAT. Retrieved from http://www.demo.istat.it. Accessed 1 September 2017.
- Jones, J. (1996). Community-based mental health care in Italy: Are there lessons for Britain? *Health & Place*, 2, 125–128.
- La, E. M., Lich, K. H., Wells, R., Ellis, A. R., Swartz, M. S., Zhu, R. I., & Morrissey, J. P. (2016). Increasing access to state psychiatric hospital beds: exploring supply-side solutions. *Psychiatric Services*, 67, 523–528.
- Lasalvia, A., Bonetto, C., Tosato, S., Zanatta, G., Cristofalo, D., Salazzari, D., Lazzarotto, L., Bertani, M., Bissoli, S., De Santi, K., Cremonese, C., De Rossi, M., Gardellin, F., Ramon, L., Zucchetto, M., Amaddeo, F., Tansella, M., Ruggeri, M. & The PICOS-Veneto Group. (2014). First-contact incidence of psychosis in north-eastern Italy:

- Influence of age, gender, immigration and socioeconomic deprivation. *British Journal of Psychiatry*, 205, 127–134.
- Lin, E., Or, Z., Coldefy, M., Urbanoski, K., Seitz, D., Carisle, C., Szatmari, P., & Kurdyak, P. (2016). Medical Practice Variations in Mental Health and Addictions Care. In *Medical Practice Variations* (ed. A. Johnson and T.A, Stukel). New York: Springer.
- Lora, A. (2009). An overview of the mental health system in Italy. *Annali dell'Istituto Superiore di Sanità*, 45, 5–16.
- Lora, A., Starace, F., Di Munzio, W., & Fioritti, A. (2014). Italian community psychiatry in practice: description and comparison of three regional systems. *Journal of Nervous and Mental Disease*, 202, 446–450.
- Ministero della Salute. (1999). Progetto Obiettivo per la Tutela della salute mentale 1998–2000. Rome: Gazzetta Ufficiale n. 274- 22.11.1999.
- Morzycka-Markowska, M., Drozdowicz, E., & Nasierowski, T. (2015). Deinstitutionalization in Italian psychiatry—The course and consequences. Part II. The consequences of deinstitutionalization. *Psychiatria Polska*, 49, 403–412.
- OECD iLibrary Psychiatric care beds per 1000 population. Retrieved from http://www.oecd-ilibrary.org/social-issues-migration-health/psychiatric-care-beds_psycarebed-table-en. Accessed 1 September 2017.
- Pedrini, L., Colasurdo, G., Costa, S., Fabiani, M., Ferraresi, L., Franzoni, E., Masina, F., Moschen, R., Neviani, V., Palazzi, S., Parisi, R., Parmeggiani, A., Preti, A., Ricciutello, C., Rocchi, M. B., Sisti, D., Squarcia, A., Trebbi, S., Turchetti, D., Visconti, P., Tullini, A., De Girolamo, G. & PREMIA Group. (2012). The characteristics and activities of child and adolescent mental health services in Italy: A regional survey. BMC Psychiatry, 30, 12.
- Picardi, A., Lega, I., Candini, V., Dagani, J., Iozzino, L., & De Girolamo, G. (2014). Monitoring and evaluating the Italian mental health system: The "Progetto Residenze" study and beyond. *Journal of Nerv*ous and Mental Disease, 202, 451–459.
- Preti, A., Rucci, P., Gigantesco, A., Santone, G., Picardi, A., Miglio, R., De Girolamo, G. & PROGRES-Acute Group. (2009). Patterns of care in patients discharged from acute psychiatric inpatient facilities: A national survey in Italy. Social Psychiatry and Psychiatric Epidemiology, 44, 767–776.
- Salise, H. J., Dressling, H., & Peltz, M. (2002). Compulsory Admission and involuntary treatment of mentally Ill patients—Legislation and practice in EU-Member States. Bruxelles: European Commission— Health & Consumer Protection Directorate-General.
- Santone, G., De Girolamo, G., Falloon, I., Fioritti, A., Micciolo, R., Picardi, A., Zanalda, E. & PROGRES Group. (2005). The process of care in residential facilities—A national survey in Italy. Social Psychiatry and Psychiatric Epidemiology, 40, 540–550.
- Simpson, S. A., Joesch, J. M., West, I. I., & Pasic, J. (2014). Who's boarding in the psychiatric emergency services? Western Journal of Emergency Medicine, 15, 669–674.
- Swartz, M. S. (2016). Emergency Department boarding: Nowhere else to go. *Psychiatric Services*, 16, 1163.
- Tarricone, I., Mimmi, S., Paparelli, A., Rossi, E., Mori, E., Panigada, S., Carchia, G., Bandieri, V., Michetti, R., Minenna, G., Boydell, J., Morgan, C., & Berardi, D. (2012). First-episode psychosis at the West Bologna Community Mental Health Centre: Results of an 8-year prospective study. Psychological Medicine, 42, 2255–2264.
- Teitelbaum, A., Lahad, A., Calfon, N., Gun-Usishkin, M., Lubin, G., & Tsur, A. (2016). Overcrowding in psychiatric wards is associated with increased risk of adverse incidents. *Medical Care*, 54, 296–302.
- Viazzo, P. P. (2003). What's so special about the Mediterranean? Thirty years of research on household and family in Italy. *Continuity and Change*, 18, 111–137.

