



Community Psychiatry in Rural Greece: The Role of the Mobile Mental Health Units

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Almost a decade ago, an article published in the official journal of the Hellenic Psychiatric Association, concerning the state of Greek mental health reform, referred to the significant shortages of mental health staff and services in rural areas of the country [1]. The release of the present Special Issue attempts to highlight the progress that has been made over the last decade with regard to mental health delivery in those underserved areas. The aim of this Special Issue of *Psych* is therefore to present the most recent advances in community mental healthcare in rural and remote areas in Greece, both in the mainland and in several of the Greek islands. This Special Issue focuses on the Mobile Mental Health Units (MMHUs), which may be the only available community mental health services in rural areas in Greece [2,3].

In this Special Issue of *Psych*, we present an editorial by leading researchers in the field of community mental health. Samakouri et al. [4] provide a thorough account of the history of community psychiatry in rural Greece, by presenting the origin and evolution of the MMHUs. Since the introduction of the first two pilot MMHUs in the early 1980s, those services expanded widely over the last 2 decades, and currently their number is 25. Due to their accessibility and through interdisciplinary working [5], those low-cost services contributed significantly to the continuity of care in people with mental illness, the reduction of relapses and hospitalizations, and the reduction of stigma and prejudice towards mental illness. Importantly, there is preliminary evidence that MMHUs may be a cost-effective model of care [6].

The study of severe mental disorders (SMI) in the rural context is a neglected area of research worldwide [7], and this is also the case of Greece. It is therefore relevant to present data on the care of patients with psychotic disorders in those areas. The study by Garbi et al. [8] addresses an important topic, that is the impact of the care delivered by the MMHUs on hospitalizations in patients with severe mental illness. The findings of the study are encouraging, as hospitalization rates had been significantly reduced by 45.9% in treatment engaged patients with schizophrenia spectrum disorders or bipolar disorder over a mean 6.7-year follow-up period. A significant reduction of 54.5% in days of hospitalization had been also observed. This study replicates and extends the results of another recent study, that recorded a 5-fold reduction in admissions and a 2.6-fold reduction in length of hospital stay in patients with SMI that received care by a MMHU in mountainous areas in rural Greece over a 5.3-year follow-up period [9]. The number and duration of involuntary admissions was also significantly reduced in both studies. MMHUs in rural Greece prioritize patients with SMI [10,11], and have been shown to effectively engage those patients to treatment [12]. These characteristics probably account for the observed reduction of hospitalization rates and length of hospital stay in patients with SMI. These findings are in line with international research, which demonstrated that patients



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Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). admitted to a mobile mental health clinic in an urban area had a significant reduction in emergency department utilization over an 8-month follow-up period [13].

The study by Bakola et al. [14] presents preliminary data on dietary habits and obesity rates in a sample of 55 community-dwelling, rural chronic patients with schizophrenia-spectrum disorders. Although a large proportion of patients were overweight (32.7%) or obese (38.2%), according to the Body Mass Index (BMI), BMI was not co-related to dietary habits of patients, as measured with the Dietary Instrument for Nutrition Education (DINE) Questionnaire. This may mean that obesity could be accounted for by other reasons, that are disorder-specific factors, such as negative symptoms, and lifestyle behaviors, such as physical inactivity [15]. Despite methodological considerations and small sample size, this study provides a basis for further research, as pointed out by the authors.

In the Greek islands of the Aegean Sea, a large number of refugees and immigrants have landed over the last years. The adversities and mental health problems in those people have been described previously [16]. The study by Fylla et al. [17] in the context of the MMHU in an island is the first attempt in the Greek literature to systematically record the mental health needs in refugees and immigrants in a hot-spot camp. Over a five-year period, the referrals to the MMHU in the island of Chios, East Aegean, that involved refugees were almost one-fifth of the total referrals. Importantly, 44.5% of those referrals involved children and adolescents. According to the authors, the main outcome of the referrals had been the dropout. Indeed, in almost one-fifth of requests, the request was canceled without a single appointment ever taking place. With regard to the refugees' diagnoses, anxiety and stress-related disorders were the most common (42.7%), followed by mood disorders (27.2%). This study highlights the emotional burden of refugees and also points out the burden on local community mental health services, that is posed by the increased need of this population for services. Accordingly, the Greek state and policy makers should allocate adequate resources for those MMHUs to address the mental health needs of refugees and immigrants at their catchment areas.

Other research in this Special Issue focuses on Albanian immigrants that permanently reside in Greece. The article by Pantelidou et al. [18] extends their previous work on the mental health of this population [19]. The study showed that significantly less Albanian immigrants were in contact with the local MMHU, compared to Greek native citizens. Moreover, they were more likely to see a psychiatrist and receive medication, rather than receive psychotherapy and other interventions. Importantly, dropout rate was significantly higher in Albanian immigrants. These findings are relevant for the care of immigrants that are permanent residents in Greece, and highlight the need for further research if we are to better understand and eliminate such disparities in mental healthcare.

Finally, Peritogiannis and Tsoli [20] present a brief account of the newly launched hybrid model of Assertive Community Treatment (ACT) in rural and in several urban areas in Greece. The authors refer to the challenges and limitations in providing ACT in low-resourced settings, and discuss the opportunities for better treatment of several difficult-to-engage patients. They also describe the adjustments that were made by the model, in order to be feasible in rural communities, in line with international practices [21–23].

It is widely acknowledged that there are significant inequities in health and mental health care delivery in rural areas, compared to urban and metropolitan locations [24–26]. MMHUs in Greece and the so-called mobile mental health clinics in other countries [27–29] are an important step toward the elimination of mental health disparities. MMHUs in Greece are easily accessible and fully integrated within the local primary healthcare system [30]. Despite their focus on SMI, they treat all referred patients [31], including special populations such as the elderly. The MMHUs have assumed a critical role in the diagnosis and treatment of mental disorders in the elderly [32,33], in co-operation with primary care physicians [34]. Indeed, the MMHUs are the best available option in those areas for mental healthcare delivery in elderly patients [35]. This is relevant, given the ongoing aging of the population in rural areas in Greece. The recent position statement of the (unofficial) network of the MMHUs [36] presents the current challenges that are faced by the MMHUs,

and highlights the importance of continuing training in topics such as cultural psychiatry and psychogeriatrics, alongside with increased awareness and monitoring of physical morbidity in SMI patients.

It is noticeable that the practice of mobile health care delivery has gained a lot of attention recently, as an innovative model of health services delivery that provides a broad range of services to vulnerable populations, such as those residing in rural communities. It has been argued that mobile health clinics can improve access to healthcare, particularly in populations living in resource-limited areas, and serve as a link between the community and clinical facilities [37]. The recent COVIC-19 pandemic posed several challenges to the mobile health clinics model of care, and several researchers support the expansion and optimal integration of mobile clinics into the healthcare delivery system, in order to address current and future health crises [38]. This could also be the argument for mobile mental health services, given the increased demand for mental healthcare during the pandemic, and the challenges that primary care providers face in this regard [39].

Clearly, much more research is warranted to elucidate the crucial role of the MMHUs in mental healthcare delivery in remote and underserved areas in Greece, and to further support their effectiveness and cost/effectiveness. However, the existing evidence supports that mobile mental health teams are a model of care that is relevant for rural and remote settings, across most, if not all, low-resourced settings, and thus is worthy of funding and expanding.

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