The Mobile Mental Health Units Services Utilization in the Northeastern and Western Cyclades, Greece

Aikaterini Lykomitrou, MSc, PhD
Department of Social and Educational Policy, University of Peloponnese, Corinth, Greece

Maria Saridi, RN, MSc, PhD
Director of Nursing, General Hospital of Korinthos, Greece and Research Fellow, Faculty of Social Sciences, University of Peloponnese, Corinth, Greece

Stelios Stylianidis, PhD
Professor, Department of Psychology, Panteion University of Social and Political Sciences, Association for Regional Development and Mental Health – EPAPSY, Athens, Greece

Kyriakos Souliotis, PhD
Assist. Professor, Department of Social and Educational Policy, University of Peloponnese, Corinth, Greece

Correspondence: Maria Saridi, PhD, Director of Nursing, General Hospital of Korinthos, Greece and Research Fellow, Faculty of Social Sciences, University of Peloponnese, Corinth, Greece, Sina 33 str. Corinth. Greece e-mail: sarmar32@windowslive.com

Abstract

Purpose: The purpose of this research is to evaluate the significance of the Mobile Mental Health Units (MMHUs) in inaccessible areas and highlight the consequences from their use.

Material and Method: Analysis of variables was performed with the IBM SPSS Statistics 22.0. Data collected concerned the people that visited the MMHUs during 2015. More specifically, the sample consisted of 724 people from 12 islands where the MMHUs of the northeastern and Western Cyclades operate.

Results: Currently, in Greece there are no appropriate structures to cover the needs for mental health services. The problem is even more pronounced in remote and inaccessible areas. For this reason, it is necessary to develop flexible forms of community-based interventions, such as those provided by the MMHUs.

The analysis revealed that the vast majority of patients were Greeks (91.6%) and 60.9% of them were women. Almost half of the people visited the MMHUs on their own will. The majority of them (61.2%) followed a program of psychotherapeutic sessions. 47.1% of the patients were diagnosed with mental disorders, 18% of the population was diagnosed with mood disorders (F30-F39), and 17.5% of the patients were diagnosed with neurotic disorders associated with anxiety and physical disorders (F40-F48).

Conclusions: The development of the MMHUs in inaccessible areas and areas that lack appropriate medical health care is essential. It is the more efficient way to adequately respond to the needs of patients with mental health problems because of the MUs’ flexible organization. The MUs can deal with cases of mental disorders successfully, using efficiently the otherwise limited financial resources.

Key Words: Mobile Mental Health Units (MMHUs), community mental health care, health policy, social psychiatry

Introduction

The economic crisis in Greece limited the funding resources available for the health sector (Dubois and Anderson, 2013). The existing present problems in the mental health sector were worsen as a result of the deteriorating economic conditions (Simou & Koutsogeorgou, 2014, Anagnostopoulos & Soumaki, 2012; Kondilis et al., 2013, Stylianidis and Chondros, 2011). The limited budget and the increasing needs for medical treatment, as well as the geographic peculiarity of the country, were all factors that had to be considered by the policy makers.
In the past, the patients could not turn to specialized psychiatric departments of hospitals or units in order to seek help for their mental disorder. In particular, patients who were diagnosed with organic and mental health problems, were obliged to address mental health specialists in Athens. Many of them were forced to involuntary hospitalizations. The treatment of these incidents was particularly difficult, as any recurrence should be checked. As a result, it was observed that in many cases, the mental health condition went untreated or even undiagnosed (Tylee and Walters, 2006). Since the discontinuity or lack of patient treatment results in the deterioration of his/her mental health disorder, eventually transforming it into a long-term illness, it is necessary to take appropriate proactive action (Wall et al., 1999). Since the Mobile Mental Health Units (MMHUs) started to operate a gradual reduction in the number of diagnosed organic and mental health problems was noted.

The MMHUs operate on islands in the northeastern and western Cyclades. The public care system in this area is absent for people with mental disorders. People in need of mental health care could turn only to the available services of the hospital of Syros, having as their only other alternative the provided services of the private mental health professionals that operate in some islands and for certain periods during the year.

The geographical dispersion was one of the greatest difficulties that the Mobile Units (MU) had to deal with. The transportation, in order to travel from or to an island, is plausible by air or by the sea. During the winter, the access becomes more difficult, because of the reduced itineraries, as well as the unstable weather conditions. The financial restrictions imposed by the Ministry of Health posed an additional difficulty. The available budget is limited and the cash flow is neither stable nor sufficient. The appearance of large deficits in 2010 and 2011 had already led to horizontal cuts in order to ensure the sustainability of the economic system (Kanavos and Souliotis, 2017; Souliotis et al., 2016; Souliotis, 2013). Nevertheless, further exacerbating financial problems were created. The increase in psychiatric morbidity could be seen as a result of the economic conditions in Greece, the professional uncertainty, the lack of financial resources, the unemployment, the financial debts and other similar situations (Skapinakis et al., 2013; Economou et al., 2011; Economou et al., 2012; Giotakos et al., 2012; Giotakos, 2010).

An additional difficulty that the MUs had to take into account in order to ensure the success of their interventions was the social environment of the islands. It is not uncommon for the local island community to have anachronistic views on the concept of mental disorder. As a result, in an effort to avoid being stigmatized, the patients may not seek help from the Mobile Units. It has to be noted though, that the development of the MUs were based on the community, promoting the importance of the citizens’ support. Except for the therapeutic sessions, the MUs organize activities – such as conferences, international and national speeches, festivals, cultural and sports events etc. - that aim to inform citizens about mental disorders. In addition, speeches are given by specialists to specific groups, such as the elderly, victims of domestic violence, parents, children, etc. Seminars were organized in order to train general and rural doctors, as well as professional groups such as teachers, police officers, priests, etc. in order for them to be able to recognize, help and guide the people in need to the appropriate mental health professionals for further help. The creation of “Voluntary Support Nodes” to support families with social and financial problems, in Paros, was an important action supported by the MU (Stylianidis, 2014).

Research questions and hypothesis

The purpose of this research is to evaluate the MMHUs in terms of their effectiveness in addressing and treating cases of patients with symptoms of mental disorders. The main objective of the research is to highlight the importance of the presence of the MUs in inaccessible areas.

Material and Methods

The scientific, public, non-governmental and non-profit organization, EPAPSY, “The Association for Regional Development and Mental Health”, created the MMHUs of the northeastern Cyclades and the Mobile Mental Health Unit of the western Cyclades. The Mobile Mental Health Unit of the northeastern Cyclades is situated in Paros and provides mental health services to the islands of Paros, Antiparos, Syros, Tinos, Mykonos and Andros. The Mobile Mental
Health Unit of the western Cyclades is situated in Triovasalo, Milos and provides mental health services to the islands of Kea, Kythnos, Serifos, Sifnos, Kimolos and Milos. The units provide free mental health services to the community, and are funded by the Ministry of Health and Social Solidarity and the EU, while receiving additional support by the local municipalities. The data were obtained after contact with the organization EPAPSY, which organizes the MHMUs. The data were used strictly for the purposes of this study, and were carefully encoded in order to ensure that the protection of the anonymity of the patients and their personal data.

Data Analysis

The data used for the purposes of this study derived from the database of EPAPSY. Another important source of information came from the answers given by the patients through the completion of a questionnaire for EPAPSY. The results of the patients’ answers were statistically correlated with their demographic and socio-economic status as well as with general information concerning their current and past medical history. An additional source of data came from the clinical practitioners in terms of their diagnosis, treatment, and subsequent follow up for each patient. The diagnosis of each disease complies with the ICD-10 Disease Classification Criteria. Following the accumulation of data, the analysis of variables was performed with the use of the IBM SPSS Statistics 22.0 statistical program, in order to ensure the statistical significance of the measurable results and to extract reliable and valuable conclusions.

Results

Paros was the island with the highest number of people who visited the MU during 2015. The local community was very supportive even from the early stages of the MU’s operation. The excellent cooperation between the MU and the local municipality resulted in increasing awareness of the patients concerning the available services in the mental health sector. It has to be noted that several pilot actions were initiated in the island of Paros, and were later applied in other islands. The municipality of Paros has financed a great part of the costs concerning the unit’s operations and facilities. The units continued to operate uninterruptedly and despite the restrictions imposed as a result of the economic recession, the MU was established as a part of the island life.

According to the case-by-case diagnoses of the mental health professionals (Figure), 53% of the patients belonged to the diagnostic category of "Chapter V: Mental and Behavioural Disorders (F00-F99)“, 18% of the patients fell in the diagnostic category of mood disorders (F30-F39), while 17.5% of them were diagnosed with some condition included in the “Neurotic, stress-related and somatoform disorders” (F40-F48)(Table 1). Other, previous research in Greece, had also revealed great numbers of patients diagnosed with mood, neurosis and anxiety disorders (Skapinakis et al., 2013). Furthermore, 47.1% of patients’ diagnoses fell in the Diagnostic Category of "Chapter XXI: Factors influencing health status and contact with health services (Z00-Z99)” (Figure 1), and 38.5% of the patients sought treatment by the MUs for factors that affect health status and contact with health services and counseling (Z03-Z99) (WHO, 2016). Finally, two hundred and eleven (211) out of the two hundred and seventy-nine (279) patients were interested in parent counseling.

The majority of the patients were Greeks, followed by patients of Albanic origin. This result was foreseeable, according to the Hellenic Statistical Authority and the 2011 census (Hellenic Statistical Authority, 2014). Citizens with Albanian citizenship had the highest percentage of residence in Greece. It is impressive that only a small number (n=25) of patients originates from other countries. The Cyclades have a great number of visits, especially during summer. However, this increase is not consistent with the results of this survey. This may happen due to the fact that tourists do not go to health services during their holidays, unless there is an urgent need for treatment by a mental health professional.

The majority of the patients (60.9%) were women. This is congruent with the epidemiological researches that have taken place in Greece in the past (WHO, 2014; Skapinakis et al., 2013; Drydakis, 2015; Skapinakis et al., 2007; Alonso et al., 2004; Stylianidis et al., 2005; Mavreas et al., 1986). According to another survey, which was conducted by the MMHU of Paros - Antiparos, the results
demonstrated that the rates of common psychiatric disorders in the female population were significantly higher than the corresponding rate of male patients (Stylianidis et al., 2010).

Table 1: International Statistical Classification of Diseases and Related Health Problems

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>F00-F09</td>
<td>Organic, including symptomatic, mental disorders</td>
<td>39</td>
<td>5.4</td>
</tr>
<tr>
<td>F10-F19</td>
<td>Mental and behavioural disorders due to psychoactive substance use</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td>F20-F29</td>
<td>Schizophrenia, schizotypal and delusional disorders</td>
<td>20</td>
<td>2.8</td>
</tr>
<tr>
<td>F30-F39</td>
<td>Mood [affective] disorders</td>
<td>130</td>
<td>18.0</td>
</tr>
<tr>
<td>F40-F48</td>
<td>Neurotic, stress-related and somatoform disorders</td>
<td>127</td>
<td>17.5</td>
</tr>
<tr>
<td>F50-F59</td>
<td>Behavioural syndromes associated with physiological disturbances and physical factors</td>
<td>5</td>
<td>0.7</td>
</tr>
<tr>
<td>F60-F69</td>
<td>Disorders of adult personality and behaviour</td>
<td>12</td>
<td>1.7</td>
</tr>
<tr>
<td>F70-F79</td>
<td>Mental retardation</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>F80-F89</td>
<td>Disorders of psychological development</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Z03-Z09</td>
<td>Factors influencing health status and contact with health services, counseling</td>
<td>279</td>
<td>38.5</td>
</tr>
<tr>
<td>Z00-Z02</td>
<td>Examination for administrative purposes</td>
<td>62</td>
<td>8.6</td>
</tr>
<tr>
<td>F99</td>
<td>Unspecified mental disorder</td>
<td>40</td>
<td>5.5</td>
</tr>
</tbody>
</table>
Figure 1. Patients’ Diagnoses according to ICD-10

- F00-F09 Organic, including symptomatic, mental disorders
- F10-F19 Mental and behavioural disorders due to psychoactive substance use
- F20-F29 Schizophrenia, schizotypal and delusional disorders
- F30-F39 Mood [affective] disorders
- F40-F48 Neurotic, stress-related and somatoform disorders
- F50-F59 Behavioural syndromes associated with physiological disturbances and physical factors
- F60-F69 Disorders of adult personality and behavior
- F70-F79 Mental retardation
- F80-F89 Disorders of psychological development
- F90-F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence
- F99-F99 Unspecified mental disorder

Nearly half of the patients visited the MMHUs voluntarily. The patients may have recognized the need for psychological support and counseling and as a result they asked help from the mental health experts on their own will. However, the high number of people without reference from other professional group may be due to other users’ information. The dissemination of information by the existing patients is important, because it is likely to happen because of their satisfaction. In addition, some patients may be interested in MUs because of the other activities, such as festival, speeches etc. which were organized by the MMHUs. These activities inform a large part of the population, in order to circumvent their suspensions and ask for help by the MUs voluntarily. These activities should be repeated in the future so as to attract even more people (Stylianidis and Pantelidou, 2006). The referral rate from the primary health care units is relatively small (18.8%), which highlights both the inadequate interconnection of the services provided by the primary health care units and other units and their operational problems. Primary health care services are associated with the reduction of social stigma and especially patients diagnosed with mental disorders (WHO 2009; Economou et al., 2009) and it is suggested that activities are developed for patients diagnosed with opioid dependencies (Souliotis and Lionis 2005; Souliotis 2013; Lionis et al., 2009; Souliotis and Tountas, 2013). On the contrary, the smallest number of patients were referred by the church’s organs. The church in small societies, such as the islands, plays an important role in the lives of the inhabitants. As a consequence, efforts should be intensified so as to inform and educate the priests about the importance of psychological support. The obstacles of the different mindset must be overcome and priests must motivate people, who are in need, to visit MMHUs.

In the current survey, the 28% of the population suffers from physical illnesses. The existence of
physical illness is likely to affect the mental health. Moreover, it is even more difficult for the mental patients to handle both the mental disorder and the physical illness. Physical disease may aggravate the already vulnerable health of patients with additional psychological burden. Two cross-sectional surveys, which were carried out in Greece in 2006 and 2011, present that chronic patients were more likely to experience negative feelings than healthy one (Mylona et al., 2014). The 72% of patients did not suffer from any chronic physical disease in this research. The only cases, in which serious health problems were associated with diagnosis of mental disorder, were patients diagnosed with organic mental disorders and psychological development disorders.

In order to treat a mental disorder, the pharmacotherapy, although important, doesn’t seem to be enough. An important role in the therapeutic approach, plays the interaction between the patient and the health practitioner. Pharmaceutical therapies, which provide immediate relief of the symptoms of physical illnesses, doesn’t seem to have the same effect in the cases of patients with mental disorders. Patients who were diagnosed with psychotic disorders, experienced a high degree of difficulty in receiving the appropriate treatment. (Peritogiannis and Mavreas, 2014). 61.2% of the patients in the present study followed a treatment plan based only on psychotherapeutic sessions. The treatment consisted of three therapeutic cycles and changed depending on the needs of each patient. The percentage of patients who did not need to receive pharmaceutical treatment increased from 68.1%, during the first cycle, to 91.6% in the third cycle of the treatment plan. This increase highlights the importance of actual interaction with the mental health professionals.

There are, however, some cases of mental health disorders (mainly mental disorders described in Chapter V), that cannot be treated without the appropriate medication. More specifically, 30.8% of patients who suffered from organic mental disorders received antidepressant treatment, and 43.8% of patients diagnosed with mood disorders followed pharmacotherapy with antidepressant drugs.

Discussion

The government spent a large amount of money in order to organize their activities. The islands have no units that could treat patients with symptoms of mental disorders. The patients were either not treated at all or not healed. As a result, some patients ended in forced hospitalization. However, the MUs’ services played an important role in the outcome of treatment of individuals, who suffered from severe mental disorders, and reduced the cases that required hospitalization, as they covered the population in need. Moreover, MMHUs contribute significantly to the therapeutic continuity of care for each patient. Since the lack or discontinuity in the patient’s treatment could lead to the aggravation of the mental disorder and its transformation into long-term disease (Wall et al., 1999), the efficacy of MUs is evident. It should also be mentioned that the cost which the patients paid themselves was particularly high without calculating the loss of productivity of patients and their families due to psychiatric disorders.

The results of MMHUs operations were particularly important on the islands and Greece in general. The results are consistent with other mobile units in other countries and in Greece (Peritogiannis et al., 2013; Mendez-Rubio et al. 2012; Stancu et al., 2008; Bonsack et al., 2008; Gaillard and Giannakopoulos, 2006; Urben, 2013). A suggestion that would upgrade MMHUs’ activities is the use of Telepsychiatry. The use of telecommunication may be the answer to the geographic dispersion of the islands. This solution may be more economic, since the patients and therapists’ travel costs would be avoided. Moreover, the increase of the population in the islands during the summer could be used for further economic growth. The medical tourism industry grows, and MMHUs can be developed in this area. Medical tourism would help the development of the patients and the societies. It is worth to mention that the islands receive a large flow of refugees. There is correlation of migration and mental health, and as a result the populations need psychological support (Kirmayer et. al., 2011; Fazel et al., 2005; Bhugra et al.; 2011, Zisi, 2006). This fact necessarily leads to the further development of MMHUs’ activities.

In the future, a larger survey in inaccessible geographical areas without structures for psychiatric care would help to compare the results of this study and record any variations. In
addition, the MMHUs’ productivity was measured over a specific time period and the analysis was focused on a specific year (2015). It is proposed that a new survey is organised using data over a larger period of time rather than the data of solely one year.

Conclusion

Epidemiological research of mental disorders in the general population is an important tool in order to assess the mental health needs, as well as the appropriate organization of the therapeutic programs. This research indicated that the burden of morbidity and the financial costs caused by mental disorders weighs down on the individuals, the Health System and the society. The health care system does not have the necessary and appropriate structures to meet the increasing needs for mental health services. This problem is even more evident in remote and inaccessible areas. The development of flexible forms of interventions, such as those performed by the MMHUs, is necessary. The expansion of their activities in other inaccessible areas of the country would contribute to a more effective and cost-efficient management of the cases of mental disorders throughout the country, and would ultimately provide the needed treatment to even more patients with mental health disorders.

References


Peritogiannis V, Tatsioni A, Menti N, Grammeniati A, Fotopoulou V, & Mavreas V. (2013). Treatment engagement of psychotic patients with a mobile mental health unit in rural areas in Greece: a five-year study, Schizophrenia research and treatment, 20136;6, Ar ID. 613956.
